A PHONOLOGICAL GRAMMAR OF A DIALECT OF ILOKANO

by

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Date___August 9, 1967___
A PHONOLOGICAL GRAMMAR OF A DIALECT OF ILOKANO

Abstract

Current linguistics views grammar as an integrated syntactic-semantic-phonological description of a language; as generative, that is, that sentences have a definite structure; that there are an infinite number of sentences, and that, therefore, a grammar cannot be a list of elements, but instead a finite set of explicit rules which can automatically assign a structure to an infinite set of sentences. The present thesis - a phonological grammar of the cultivated dialect of Ilokano as spoken in the town proper of Bayombong, Nueva Vizcaya - has aimed to reflect these modern concepts of a grammar in both its content and methodology. It suggests a methodology for the description of the sound pattern of a given dialect. As to content, the results of this study should be useful as basis for a contrastive phonology of Ilokano and English, or the other Philippine languages and dialects, with the end in view of contributing to an effective second-language teaching and curriculum construction.

The study has the following salient features:

(1) Chapter 1 covers general discussions on Ilokano and its dialects, and the relationships of Ilokano to the other Philippine languages and dialects. Chapter 2 includes preliminary discussions on content and procedure of the descriptive analyses.

(2) The study operates on the taxonomic and explanatory levels of linguistic science. The taxonomic level is
achieved by the etic and the emic analyses in Chapters 3 and 4. The explanatory level is reflected in Chapter 5 - in the phonological grammar which is a system of 34 (23 segmental and 11 suprasegmental) emic units of the Ilokano dialect, and a set of 42 unordered structure-assigning rewrite rules (32 phonetic rules and 10 morphophonemic rules) which enumerate Ilokano utterances and their associated phonological analysis. This feature of the study may be stated in terms of the outputs of each level, the relationships of which have been schematically shown as follows:

<table>
<thead>
<tr>
<th>Taxonomic Level</th>
<th>Explanatory Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 Phones</td>
<td>34 Phonemes</td>
</tr>
<tr>
<td></td>
<td>42 Phonological Rules</td>
</tr>
</tbody>
</table>

(3) For the descriptive methodology and procedure employed in this study, the writer has taken cues from two linguists: (a) from Kenneth L. Pike, his tagmemic theory which basically assumes that any unit of purposive human behavior is well-defined if and only if one describes it in reference to (1) contrast, (2) variation, and (3) distribution. This trimodal theory of analysis has been briefly stated, thus:

\[
\text{Contrast Unit} = \text{Variation Distribution};
\]

(b) from Noam A. Chomsky, his generative grammar theory which has been briefly stated in the first paragraph of this
abstract and discussed at considerable length in Chapter 5.

(4) The analysis of the stream of speech at the end of Chapter 4 graphically illustrates some general concepts in linguistics as applied to Ilokano.

(5) The trimodal scheme, \( U = V \), is operative at both the taxonomic and explanatory levels of this research. The detailed etic analysis which is predominantly articulatory delineates the raw materials of speech – the 41 etic units of the Ilokano dialect, extracted from the phonetic data, the corpus of utterances presented in Chapter 2. By the criterion of phonetic resemblance and by the CVD-formula employed in the process of phonemization – Chapter 4 – the 41 etic units have been reduced to 34 emic units.

(6) The patterns of occurrence relationships of the emic units are described in terms of the phonological rules. Each rule is of the form: \( X \rightarrow Y \).

Within the limits of its organized data, facts and information, this thesis asserts:

(1) That the phonemes /e, o, f, v, h/ – occurring in Spanish or English loan words which are currently used by the Ilokanos represented in this study – have become assimilated into the phonemic system of the Ilokano dialect;

(2) That the basic syllable structure of Ilokano has for its underlying pattern, \( CV(C) \) and not \( V \) or \( CV \); and;

(3) That the linguistic description at the explanatory level of the research is generative, since the phono-
logical structure of the Ilokano dialect can best be accounted for, not by an inventory of elements, but by a system of rules - its generative phonological grammar.
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Among those to whom the writer is grateful for guidance and assistance in the preparation of this thesis are her professors: Robert J. Gregg, by whose tremendous knowledge and ability her interest in phonology was stimulated; Ruth E. McConnell, who introduced her to transformational-generative grammar, and by whose creative teaching this student was encouraged to write the phonological grammar of her Ilokano dialect; and, Frederick Bowers, in whose graduate seminar she gained further orientation and insight into the transformational-generative grammar theory. She is also grateful for the ideas shared by Professors Kenneth L. Pike and Noam A. Chomsky. These linguists have promptly answered her inquiries into their theories of language and linguistics which pervade this thesis.

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and in which linguistics in turn finds practical application, she is very grateful to Miss Fe Manza, Mrs. Estela F. Daguio, and Mrs. Trinidad S. Mariño, all of the Bureau of Public Schools.

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A special word of thanks is due to her parents and sisters, and to the families and friends who have shown great concern about her well-being while she was preparing the manuscript.

N. P. O.
# CONTENTS

**ACKNOWLEDGMENTS**

**ABSTRACT**

**LIST OF FIGURES AND TABLES**

**CHAPTER**

1. **INTRODUCTION**

1.1 The Ilokano Language

1.2 Purpose and Importance of the Study

1.3 Review of Related Studies

1.4 Scope and Delimitation

1.5 Definitions of Terms Used

1.6 Theoretical Framework

1.7 Methodology and Procedure

2. **METHODOLOGICAL PRELIMINARIES**

2.1 The Organs of Speech

2.2 Types of Speech Sounds

2.21 How Vocoids are Described and Classified

2.22 How Contoids are Described and Classified

2.3 The Syllable: Its Function and Structure

2.4 Transcription Signs and Symbols

2.5 Phonetic Data

3. **THE SOUNDS OF SPEECH: A PHONETIC ANALYSIS**

3.1 Phonetic Charts

3.11 The Segmental Sounds

3.12 The Suprasegmental Features
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>The Segments in Detail</td>
<td>46</td>
</tr>
<tr>
<td>3.21</td>
<td>Vocoids</td>
<td>46</td>
</tr>
<tr>
<td>3.211</td>
<td>The Front Vocoids: [i, I, e, a]</td>
<td>47</td>
</tr>
<tr>
<td>3.212</td>
<td>The Central Vocoids: [ɔ, ə]</td>
<td>57</td>
</tr>
<tr>
<td>3.213</td>
<td>The Back Vocoids: [u, U, o]</td>
<td>60</td>
</tr>
<tr>
<td>3.22</td>
<td>Vocoid Chains</td>
<td>69</td>
</tr>
<tr>
<td>3.221</td>
<td>The Fronting Vocoid Chains</td>
<td>70</td>
</tr>
<tr>
<td>3.222</td>
<td>The Retracting Vocoid Chains</td>
<td>77</td>
</tr>
<tr>
<td>3.23</td>
<td>Contoids</td>
<td>82</td>
</tr>
<tr>
<td>3.231</td>
<td>Plosives: [p, b, t, d, k, g, q]</td>
<td>82</td>
</tr>
<tr>
<td>3.232</td>
<td>Nasals: [m, n, ŋ]</td>
<td>93</td>
</tr>
<tr>
<td>3.233</td>
<td>Lateral: [l]</td>
<td>97</td>
</tr>
<tr>
<td>3.234</td>
<td>Alveolar Flap: [r]</td>
<td>98</td>
</tr>
<tr>
<td>3.235</td>
<td>Fricatives: [f, v, s, h, ŋ]</td>
<td>100</td>
</tr>
<tr>
<td>3.24</td>
<td>Contoid Clusters</td>
<td>105</td>
</tr>
<tr>
<td>3.241</td>
<td>Prevocalic, Initial Contoid Clusters</td>
<td>110</td>
</tr>
<tr>
<td>3.242</td>
<td>Prevocalic, Medial Contoid Clusters</td>
<td>115</td>
</tr>
<tr>
<td>3.243</td>
<td>Postvocalic, Final Contoid Clusters</td>
<td>121</td>
</tr>
<tr>
<td>3.3</td>
<td>The Suprasegments in Detail</td>
<td>123</td>
</tr>
<tr>
<td>3.31</td>
<td>Stress and Rhythm</td>
<td>123</td>
</tr>
<tr>
<td>3.32</td>
<td>Length</td>
<td>129</td>
</tr>
<tr>
<td>3.33</td>
<td>Juncture, Pitch and Intonation</td>
<td>131</td>
</tr>
<tr>
<td>3.331</td>
<td>Juncture</td>
<td>131</td>
</tr>
<tr>
<td>3.332</td>
<td>Pitch and Intonation</td>
<td>132</td>
</tr>
</tbody>
</table>
CHAPTER 4 PHONEMIC ANALYSIS

4.1 Rationale for Phonemization . . . . . . 138
4.2 Determining the Set of Phonemes . . . . . 139
4.21 The Phoneme Concept . . . . . . . . . . 139
4.22 Analytic Procedure:
   Pike's Tagmemic Theory . . . . . . . . . . 141
4.221 CONTRAST . . . . . . . . . . . . . . . . . . . . . 144
4.2211 Vowels . . . . . . . . . . . . . . . . . . . . . 147
   (a) Contrasts in all dimensions . . . . 151
   (b) Contrasts in tongue height . . . . 152
   (c) Contrasts in tongue advancement . 154
4.2212 Consonants . . . . . . . . . . . . . . . . 155
   (a) Voice versus Breath . . . . 155
   (b) Contrasts in Point of Articulation . 160
   (c) Contrasts in Manner of Articulation . 167
4.2213 Suprasegmental Prosodemes . . . . . . 174
   (a) Stress . . . . . . . . . . . . . . . . . . . . . . . 175
   (b) Length . . . . . . . . . . . . . . . . . . . . . . . 176
   (c) Pitch, Intonation and Juncture (PIJ) 178
4.222 VARIATION and DISTRIBUTION:
   Phonotactics and Morphophonemics . . . . 181
4.2221 Phonotactics . . . . . . . . . . . . . . . . . . 182
   (a) Diphthongs . . . . . . . . . . . . . . . . . . . . 182
   (b) Consonant Clusters . . . . . . . . . . . . . . . . 186
CHAPTER

(c) Vowels ........................................... 188
(d) Consonants ......................................... 190
(e) Tonemes ............................................. 195
(f) Junctonemes ...................................... 196
(g) Stronemes .......................................... 197

4.2222 Morphophonemics ................................. 199
(a) Phoneme Addition .................................. 200
(b) Phoneme Deletion .................................. 203
(c) Phoneme Substitution .............................. 204

(1) Assimilation ..................................... 204
(2) Dissimilation ..................................... 205
(3) Gradation ......................................... 206
(4) Reduplication ..................................... 208

4.3 The Stream of Speech ................................. 209
4.31 Corpus ............................................. 209
4.32 Concepts ........................................... 209
4.33 Analysis ............................................ 211

5 SUMMARY AND CONCLUSIONS ......................... 216
5.1 Summary ............................................ 216
5.2 Conclusions ........................................ 237

BIBLIOGRAPHY ............................................. 241
# LIST OF FIGURES AND TABLES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Map of the Philippines showing Ilokano-speaking areas</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Cross section of the head showing the organs most directly involved in the production of speech-sounds</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>The Eight Basic Cardinal Vowels</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>The Central Vocoid Triangle</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Vocoid Matrix</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>31</td>
</tr>
<tr>
<td>Contoid Matrix</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td>Ilokano Vocoids</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>Ilokano Vocoid Chains</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Ilokano Contoids</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>150</td>
</tr>
<tr>
<td>Ilokano Vowel Pattern</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>172</td>
</tr>
<tr>
<td>Ilokano Consonant Pattern</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Philippine Languages</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>The Stream of Speech Analyzed</td>
</tr>
</tbody>
</table>
## CONTENTS

**ACKNOWLEDGMENTS**

**ABSTRACT**

**LIST OF TABLES AND FIGURES**

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 The Ilokano Language</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Purpose and Importance of the Study</td>
<td>6</td>
</tr>
<tr>
<td>1.3 Review of Related Studies</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Scope and Delimitation</td>
<td>9</td>
</tr>
<tr>
<td>1.5 Definitions of Terms Used</td>
<td>12</td>
</tr>
<tr>
<td>1.6 Theoretical Framework</td>
<td>16</td>
</tr>
<tr>
<td>1.7 Methodology and Procedure</td>
<td>18</td>
</tr>
<tr>
<td>2 METHODOLOGICAL PRELIMINARIES</td>
<td>20</td>
</tr>
<tr>
<td>2.1 The Organs of Speech</td>
<td>20</td>
</tr>
<tr>
<td>2.2 Types of Speech Sounds</td>
<td>21</td>
</tr>
<tr>
<td>2.21 How Vocoids are Described and Classified</td>
<td>23</td>
</tr>
<tr>
<td>2.22 How Contoids are Described and Classified</td>
<td>29</td>
</tr>
<tr>
<td>2.3 The Syllable: Its Function and Structure</td>
<td>31</td>
</tr>
<tr>
<td>2.4 Transcription Signs and Symbols</td>
<td>35</td>
</tr>
<tr>
<td>2.5 Phonetic Data</td>
<td>39</td>
</tr>
<tr>
<td>3 THE SOUNDS OF SPEECH: A PHONETIC ANALYSIS</td>
<td>43</td>
</tr>
<tr>
<td>3.1 Phonetic Charts</td>
<td>44</td>
</tr>
<tr>
<td>3.11 The Segmental Sounds</td>
<td>45</td>
</tr>
<tr>
<td>3.12 The Suprasegmental Features</td>
<td>45</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>3.2</td>
<td>46</td>
</tr>
<tr>
<td>3.21</td>
<td>46</td>
</tr>
<tr>
<td>3.211</td>
<td>47</td>
</tr>
<tr>
<td>3.212</td>
<td>57</td>
</tr>
<tr>
<td>3.213</td>
<td>60</td>
</tr>
<tr>
<td>3.22</td>
<td>69</td>
</tr>
<tr>
<td>3.221</td>
<td>70</td>
</tr>
<tr>
<td>3.222</td>
<td>77</td>
</tr>
<tr>
<td>3.23</td>
<td>82</td>
</tr>
<tr>
<td>3.231</td>
<td>82</td>
</tr>
<tr>
<td>3.232</td>
<td>93</td>
</tr>
<tr>
<td>3.233</td>
<td>97</td>
</tr>
<tr>
<td>3.234</td>
<td>98</td>
</tr>
<tr>
<td>3.235</td>
<td>100</td>
</tr>
<tr>
<td>3.236</td>
<td>104</td>
</tr>
<tr>
<td>3.24</td>
<td>105</td>
</tr>
<tr>
<td>3.241</td>
<td>110</td>
</tr>
<tr>
<td>3.242</td>
<td>115</td>
</tr>
<tr>
<td>3.243</td>
<td>121</td>
</tr>
<tr>
<td>3.3</td>
<td>123</td>
</tr>
<tr>
<td>3.31</td>
<td>123</td>
</tr>
<tr>
<td>3.32</td>
<td>129</td>
</tr>
<tr>
<td>3.33</td>
<td>131</td>
</tr>
<tr>
<td>3.331</td>
<td>131</td>
</tr>
<tr>
<td>3.332</td>
<td>132</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>4</td>
<td>137</td>
</tr>
<tr>
<td>PHONEMIC ANALYSIS</td>
<td>137</td>
</tr>
<tr>
<td>4.1</td>
<td>138</td>
</tr>
<tr>
<td>Rationale for Phonemization</td>
<td>138</td>
</tr>
<tr>
<td>4.2</td>
<td>139</td>
</tr>
<tr>
<td>Determining the Set of Phoneme</td>
<td>139</td>
</tr>
<tr>
<td>4.21</td>
<td>139</td>
</tr>
<tr>
<td>The Phoneme Concept</td>
<td>139</td>
</tr>
<tr>
<td>4.22</td>
<td>141</td>
</tr>
<tr>
<td>Analytic Procedure: Pike's Tagmemic Theory</td>
<td>141</td>
</tr>
<tr>
<td>4.221</td>
<td>144</td>
</tr>
<tr>
<td>CONTRAST</td>
<td>144</td>
</tr>
<tr>
<td>4.2211</td>
<td>147</td>
</tr>
<tr>
<td>Vowels</td>
<td>147</td>
</tr>
<tr>
<td>4.2212</td>
<td>155</td>
</tr>
<tr>
<td>Consonants</td>
<td>155</td>
</tr>
<tr>
<td>4.2213</td>
<td>174</td>
</tr>
<tr>
<td>Suprasegmental Prosodemes</td>
<td>174</td>
</tr>
<tr>
<td>(a) Stress</td>
<td>175</td>
</tr>
<tr>
<td>(b) Length</td>
<td>176</td>
</tr>
<tr>
<td>(c) Pitch, Intonation and Juncture (PIJ)</td>
<td>178</td>
</tr>
<tr>
<td>4.222</td>
<td>181</td>
</tr>
<tr>
<td>VARIATION and DISTRIBUTION</td>
<td>181</td>
</tr>
<tr>
<td>4.2221</td>
<td>182</td>
</tr>
<tr>
<td>Phonotactics</td>
<td>182</td>
</tr>
<tr>
<td>4.2222</td>
<td>199</td>
</tr>
<tr>
<td>Morphophonemics</td>
<td>199</td>
</tr>
<tr>
<td>4.3</td>
<td>209</td>
</tr>
<tr>
<td>The Stream of Speech</td>
<td>209</td>
</tr>
<tr>
<td>4.31</td>
<td>209</td>
</tr>
<tr>
<td>Corpus</td>
<td>209</td>
</tr>
<tr>
<td>4.32</td>
<td>209</td>
</tr>
<tr>
<td>Concepts</td>
<td>209</td>
</tr>
<tr>
<td>4.33</td>
<td>211</td>
</tr>
<tr>
<td>Analysis</td>
<td>211</td>
</tr>
<tr>
<td>5</td>
<td>216</td>
</tr>
<tr>
<td>SUMMARY AND CONCLUSIONS</td>
<td>216</td>
</tr>
<tr>
<td>5.1</td>
<td>216</td>
</tr>
<tr>
<td>Summary</td>
<td>216</td>
</tr>
<tr>
<td>5.2</td>
<td>237</td>
</tr>
<tr>
<td>Conclusions</td>
<td>237</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>241</td>
</tr>
</tbody>
</table>
Chapter 1

INTRODUCTION

1.1 The Ilokano Language

The Ilokano language, like all the other Philippine languages and dialects, belongs to the Indonesian branch of the Malayo-Polynesian linguistic family. By typological classification, it is an agglutinative language.

Ilokano is the third major Philippine language. The National Census of 1960 lists 3,158,560 native speakers distributed throughout the country, the majority of whom live in the four provinces where it is the native tongue, namely, Ilocos Norte, Ilocos Sur, Abra, and La Union; and in the areas where Ilokanos have heavily immigrated - Mountain Province, Cagayan, Isabela, Nueva Vizcaya, Nueva Ecija, Pangasinan, Tarlac, Zambales, and Manila.


2. Ilokano makes extensive use of affixes to signal grammatical meaning. For details on types of linguistic structure, see Edward Sapir, Language: An Introduction to the Study of Speech, New York: Harcourt, Brace & World, Inc., 1921, Chap. 6.

3. Bureau of the Census and Statistics, Philippine National Census of 1960 (Summary Report), Manila: BCS, 1962, p. 15. See also Fig. 1 and Table 1 of this thesis.
Fig. 1
Map of the Philippines showing the Ilokano-speaking areas.
Although the Ilokano spoken in each of these places is a distinct dialectal variant of the language - especially in phonology, and to some extent in vocabulary - mutual intelligibility between them is of such a degree that speakers coming from rather widely separated localities can use it with facility as a means of communication among themselves.

It is the informed observation of the writer that in the regions where Ilokano is an "immigrant language" phonological dialectal variation can be a function of its coexistence with the native language or languages. In Nueva Vizcaya, for instance, the two native languages, Gadang and Isinay, tend to help Ilokano preserve the foreign (Spanish or English) sounds [e, o, f, v] in its phonetic code. These sounds are in the phonemic systems of the two native tongues, thus: Gadang phonemes /e/ and /f/, as in ipefu /qi pə fuq/ 'to begin', nefuffuk /ne fuf fək/ 'knocked onto', and the Isinay phonemes /e/, /o/, and /v/, as in mamvevoy /mam və voy/ 'to play'. The Ilokano spoken in the province of Pangasinan, on the other hand, has assimilated the tense schwa /ə/ of the native language, and has lost its foreign [e]-sound, which is not in the Pangasinan phonemic code. Thus, most Ilokanos in Pangasinan would say, for example, gerra /gɛr raq/ 'war' not /gɛr raq/; amen /qə min/ 'amen' not /qə men/ which does not therefore contrast with amin /qə min/ 'all'; ageskwela /qa gis kwə laq/ 'go to school' not /qa ges kwə laq/.
Table 1. Philippine Languages  
(A Partial List)

THE PHILIPPINES

Number of islands: 7,107  
Land area: 115,000 sq. miles  
Total population (as of 1960 census): 27,087,685

THE EIGHT MAJOR PHILIPPINE LANGUAGES

<table>
<thead>
<tr>
<th>Language</th>
<th>Total No. of Speakers (1960 Census)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cebuano</td>
<td>6,529,882</td>
<td>24.1</td>
</tr>
<tr>
<td>Tagalog</td>
<td>5,694,072</td>
<td>21.0</td>
</tr>
<tr>
<td>Ilokano</td>
<td>3,158,560</td>
<td>11.7</td>
</tr>
<tr>
<td>Hiligaynon</td>
<td>2,817,314</td>
<td>10.4</td>
</tr>
<tr>
<td>Bikol</td>
<td>2,108,837</td>
<td>7.8</td>
</tr>
<tr>
<td>Samar-Leyte</td>
<td>1,488,668</td>
<td>5.5</td>
</tr>
<tr>
<td>Pampango</td>
<td>875,531</td>
<td>3.2</td>
</tr>
<tr>
<td>Pangasinan</td>
<td>666,003</td>
<td>2.5</td>
</tr>
</tbody>
</table>

OTHER PHILIPPINE LANGUAGES

<table>
<thead>
<tr>
<th>Language</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apayao</td>
<td>Gadang</td>
<td>Kulaman</td>
</tr>
<tr>
<td>Ata</td>
<td>Ibanag</td>
<td>Magindanao</td>
</tr>
<tr>
<td>Bagobo</td>
<td>Ifugao</td>
<td>Mandaya</td>
</tr>
<tr>
<td>Baja</td>
<td>Igorot</td>
<td>Mangguangan</td>
</tr>
<tr>
<td>Bila-an</td>
<td>Ilongot</td>
<td>Mangyan</td>
</tr>
<tr>
<td>Bontok</td>
<td>Isinay</td>
<td>Manobo</td>
</tr>
<tr>
<td>Bukidnon</td>
<td>Ivatan</td>
<td>Maranao</td>
</tr>
<tr>
<td>Chavacano</td>
<td>Kalamian</td>
<td>Negrito-Aeta</td>
</tr>
<tr>
<td>Dawaweno</td>
<td>Kalinga</td>
<td>Palawan</td>
</tr>
<tr>
<td>Dumagat</td>
<td>Ke-ney</td>
<td>Samal</td>
</tr>
</tbody>
</table>

H. Otley Beyer, "List of Philippine Languages and Dialects," 1942. (Mimeographed.)
Another interesting observation about Ilokano is the phenomenon which linguists call "hybrid message" - bilingual or multilingual - such as the utterances combined of Ilokano and English, for instance:

- nachangean [nə 'tyeIn dyən] 'it was changed'
- flinushna [fli 'nas nəq] 'he flushed it'
- iyeschedulen [qI yes 'ke dyU len] 'schedule it now'
- mayad-adjust to [mə yəd qəd 'dyəs toq] 'he'll become adjusted'

or those of Ilokano and Spanish, for example:

- asekasuek [qa se kəs 'swək] 'I pay attention to'
  from hacer caso de 'to pay attention to'
- alemmanuen [qa la mon 'nwen] 'to shake hands with'
  from a la mano 'near at hand'

The linguistic phenomenon just cited has significant implications for Ilokano morphophonological structure, which are summed up in what Sapir said about how languages influence each other. He wrote:

"The borrowing of foreign words always entails their phonetic modification. There are sure to be foreign sounds or accentual peculiarities that do not fit the native phonetic habits. They are then so changed as to do as little violence as possible to these habits. Frequently, we have phonetic compromises."

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5 Sapir, op. cit., p. 197.
1:2 Purpose and Importance of the Study

This thesis attempts to establish the phonemes and prosodemes of a dialect of Ilokano, and to delineate the restrictions of combinability of the emic units - i.e., the phonological patterns which the emic units enter into. Specifically, the study will seek answers to the following questions:

(a) What are the emic units of the cultivated Ilokano dialect as spoken in Bayombong, Nueva Vizcaya:

1) segmental phonemes?

2) suprasegmental prosodemes?

(b) What phonological patterns of occurrence relations between the emic units does the dialect permit?

With its detailed analyses and its descriptions of how the individual sounds and features are produced and classified, how they vary and distribute in permitted phonological patterns, and with the generous examples illustrating the linguistic principles involved, the results of this study should be useful (1) as a basis for a contrastive analysis of Ilokano and other languages, particularly English and Tagalog, the results of which will in turn serve (2) as basis for preparing instructional materials in English and Tagalog for Ilokano speakers, and (3) as source material for the teaching and learning of Ilokano as a second language.
1.3 Review of Related Studies

Two doctoral dissertations and a master's thesis have dealt partly with the phonological analysis of different dialects of Ilokano.

Constantino wrote a complete generative grammar—phrase structure, grammatical transformations, and morphophonemics—of the Ilokano dialect as spoken in Santo Domingo, Nueva Ecija. The morphophonemic component of the grammar includes a phonemic analysis and a generative phonological grammar of the dialect consisting of 15 string structure rules and 2 transformational rules. The phonemic analysis revealed 25 phonemes, as follows:

3 vowels: /a i u/
16 consonants: /p t k b d g c m n n h s l r w y/

a word accent: /\'/
an emphatic stress: /*/ 

3 junctures: /\|/ /\#/ /\||/
a syllable boundary: /\-/-/ \---\[?] or [.]

A contrastive analysis of the form and distribution

6
Ernesto Andres Constantino, A Generative Grammar of a Dialect of Ilocano; (Unpublished Ph. D. dissertation, Indiana University, June 1959, 200 pp.)

7
Ibid., pp. 182-198.
of English and Iloko segmental phonemes was made by Sibayan. As a basis for contrast he established the following segmental phonemes of the La Union-Baguio City dialect:

16 consonants: /p t k ʔ b d g s h m n n l r y w/
5 vowels: /i e ə a u/
7 diphthongs: /iy əy ay uy iy iw əw uw/.

McKaughan and Forster developed a pedagogical grammar for Ilokano based on the La Union dialect. The first group of lessons includes very brief descriptions of the phonemes. The dialect has 19 segmental phonemes, /p t k b d g m n n l r w y i a ə u/, and a suprasegmental phonemic stress, /'/. No phonetic transcription of the

8
The word forms, Iloko, Ilocano, and Ilokano, have been used by different writers in referring to the language; the last two only to the native speaker. In line with the Philippine national orthography, however, the form, Ilokano, is used in the present study to refer either to the language or to the native speaker.

9

10
Ibid., pp. 100-101.

11
text material is given. While this study is helpful in pointing out how dialects of Ilokano differ in their phonemic systems, it has little to offer to the present study in terms of linguistic procedures, like phonetic description and phonemization.

The three studies, on the whole, can only serve to emphasize the increasing importance of scientific analyses - that are both comprehensive and deep - of the phonological systems of a multidialectal language like Ilokano.

1.4 Scope and Delimitation

Modern structural linguists advocate that the description - i.e., the grammar - of a language be considered within a wide scope. Chomsky, Katz and Postal, and several others, share the concept that "an integrated linguistic description of a natural language consists of three components: syntactic, semantic, and phonological." Studies


14 Ibid., pp. 11-29.
yielding such a comprehensive and integrated body of knowledge about any one language could well be the occupation of many generations of linguists. This trend in linguistic research has, however, been optimistically encouraging especially for English and Russian. For Ilokano, the grammar written by Constantino is a bold step in the right direction.

The present study deals mainly with the description of the phonological component of a projected grammar of another dialect of Ilokano. It covers both the taxonomic and explanatory levels of linguistic study as distinguished by Šaumjan, thus:

"... linguistic science is concerned above all with an exact description and classification of observable facts. ... That is the taxonomic level of linguistic science. But linguistics goes beyond a mere description and classification of observable facts; it sets itself the task of revealing the underlying immanent relations among elements inaccessible to direct observation. That is the explanatory level of linguistic science."

The writer's interpretation of the above scheme is reflected in the scope of her research. The taxonomic level embraces the phonetic and phonemic analyses in

17 Ibid., p. 70.
Chapters 3 and 4. Chapter 5 reflects the explanatory level of the research - the phonological grammar which is a system of unordered rewrite rules underlying the structure of the cultivated Ilokano dialect as spoken in the town proper of Bayombong, provincial capital of Nueva Vizcaya.

It is instructive to consider that the Nueva Vizcaya Ilokano is an admixture of all the other dialects mentioned in Sec. 1.1. This fact renders it difficult to base the descriptive statements and generalizations on linguistic features and characteristics that can be ascribed to all speakers of the dialect in question. In view of this limitation, the descriptive analysis will inevitably be based on the writer's idiolect which is representative of the cultivated speech in the area. However, in order to allow for the inherent diversity of different speakers, and also to forestall accusations of being prescriptive rather than descriptive, the statements and examples in this study will,

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Since the writer is the investigator-informant, facts about her idiolect might be mentioned here for the sake of the reader. She was born to the La Union-Pangasinan variety of Ilokano, which is her home dialect; grew up and attended elementary and high schools in Bayombong, Nueva Vizcaya where she learned the Gadang language; and, taught for ten years in the towns where Gadang and Isinay are the native languages. Besides Ilokano and Gadang, she speaks Tagalog, Pangasinan, Pampango, Isinay, English, and has a fair knowledge of Japanese, Spanish, and French.
wherever feasible, be general enough as to admit variations of structures and systems.

Languages differ in many respects, therefore, it is to be expected that most of the English glosses given with the examples are not the exact semantic equivalents of the word forms cited; they only serve to identify or describe, not define.

1.5 Definitions of Terms Used

For the sake of brevity and conciseness, the following terms and concepts are defined and interpreted as to their pertinence to this study.

Grammar. The term grammar is used in this thesis in its modern concept: that is, it is a system of rules which characterizes the native speaker-hearer's competence (his knowledge of his language) and performance (his actual use of the language in concrete situations). Grammar can be specifically defined in terms of its three components, namely, syntactic, semantic, and phonological.

A phonological grammar of a given language or dialect,

19

therefore, refers to the system of rules characterizing the native speaker-hearer's knowledge of the phonemic code of his language and his use of that code in actual speech situations.

**Dialect.** A subdivision of a language spoken in a given geographical area, differing sufficiently from the official standard form of the language in one or all of the levels of the language (pronunciation, syntax, vocabulary, and idiomatic use of words) to be viewed as a distinct entity, yet not sufficiently different from the other dialects of the language to be regarded as a separate language. In linguistic studies, the term dialect is not used in its popular pejorative sense of "vulgar, uneducated, foreign, or rustic speech."

**Idiolect.** The ideal minimum phonemic system of one individual; his personal variety of the community language system. A speech sound in a given idiolect is called an idiophone; and the phoneme, an idiophoneme. A class of idiolects with the same phonological system constitutes a dialect.

**Phonology.** The third component of a grammar of a particular language or dialect which deals with (1) the description and analysis of the raw materials of speech - the vocal sounds or phones, and (2) the organization of the phones into functional units, the phonemes, and in turn the organization of the phonemes into permitted sequences or patterns. The first is the province of Phonetics, the second, Phonemics.
The productive forms, etic and emic, are used quite extensively in this thesis, thus: etic (from phonetic) to refer to the non-functional units and processes, while emic (from phonemic), to the functional and distinctive units and processes. Some of the following terms may not be conventional to professional linguists, but in any case they are here included and defined in the sense that they are used in this study:

<table>
<thead>
<tr>
<th>Unit of:</th>
<th>Non-functional</th>
<th>Functional</th>
<th>Variant</th>
</tr>
</thead>
<tbody>
<tr>
<td>sound</td>
<td>or Etic sound</td>
<td>or Emic phone</td>
<td>or Allo-phone</td>
</tr>
<tr>
<td>pitch</td>
<td>tone</td>
<td>toneme</td>
<td>allotone</td>
</tr>
<tr>
<td>intonation</td>
<td>intonation tone</td>
<td>intonation toneme</td>
<td>intonation allotone</td>
</tr>
<tr>
<td>stress</td>
<td>strone</td>
<td>stroneme</td>
<td>allostrone</td>
</tr>
<tr>
<td>juncture</td>
<td>junctone</td>
<td>junctomeme</td>
<td>allojunctone</td>
</tr>
<tr>
<td>form</td>
<td>morph</td>
<td>morpheme</td>
<td>allomorph</td>
</tr>
<tr>
<td>meaning</td>
<td>seme</td>
<td>sememe</td>
<td>allosememe</td>
</tr>
</tbody>
</table>

**Phoneme.** The minimal bundle of relevant sound features called distinctive features or contrastive components distinguishing one utterance from another. A phoneme is not a sound; it is a class of sounds actualized or realized in a different way in any given position or environment by its representative the allophone.

**Prosodeme.** A prosodeme is an emic suprasegmental feature in the sense that a phoneme is an emic segmental unit.
Phonemic Pattern. The phonemic pattern of a language consists of (1) its finite set of distinctive features or contrastive components used to identify its phonemes, (2) its finite set of phonemes, and (3) its finite set of rules for grouping the phonemes into sequences. The set of rules, i.e., the arbitrary structural arrangements, which a language imposes on its phonemes makes it distinct from other languages. Thus, Ilokano and English share the phonemes, /m, p, s, t/, but due to the distinct phonemic pattern of either language, these phonemes function and are arranged differently in each. In English they can function in a cluster, as in glimpsed /glimpst/; in Ilokano, however, they must combine with vowels, as in impusot /qim pu sōt/ 'weaned'.

Utterance. A stretch of meaningful speech put forth by a single person before and after which there is maximum silence by that person. An utterance may be a monosyllabic word or a long complex sentence. For example, the single utterance, Umay ngata diay ubing? /qu māy na ta dyay qu bīŋ/ 'Will the child probably come?' becomes three utterances in the following situation:

Speaker 1: Umay ngata...
Speaker 2: Diay?
Speaker 1: Ubing.

Segment. A fraction of an utterance between any two immediately successive change-points. The change-points that define the limits of a segment are change-points in
the articulation of a speech organ or of two different organs. Thus, \([\eta]\) is a segment in the utterance \(\text{Umay ngata}[\text{qU maI }\eta \alpha \ 'taq]\). In the articulation of the segment, the raised position of the back of the tongue against the roof of the mouth, and the lowered position of the velum begin and end at the same times as the segment itself.

**Segmental and Suprasegmental Units.** Linguistic units which clearly follow each other in the stream of speech are called segmental or linear. Those which clearly extend over a series of several segmental groupings are called suprasegmental, nonlinear or prosodic. For example, the positions of articulation of the phonemes in \(\text{ubing }/^{2}\text{qu}^{3}\text{bin}/\), in the first sample utterance above, are segmental, while the tones superposed on them are suprasegmental.

To avoid too much verbosity, the term phoneme, in general discussions at least, will be taken to refer to both segmental phonemes and suprasegmental prosodemes. Distinctions between the two are only made where specifically necessary.

1.6 **Theoretical Framework**

The phonological theory underlying the present study

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Based on the views of several linguists. For details, see: Noam Chomsky, *op. cit.*; Morris Halle, *The Sound Pattern*
is contained in certain assumptions about the nature of linguistic structure and linguistic pattern. These assumptions are stated in terms of formal conditions which the phonological analyses and descriptions must satisfy.

(1) In phonology, speech events are represented as sequences of segments and as interlocking suprasegments.

(2) Every segment or suprasegment can be uniquely identified as a phoneme in the language by a feature (articulatory, auditory, or acoustic), or a combination of features, of sound known as distinctive features or contrastive components.

(3) A borrowed sound is considered assimilated into the native phonemic system when the loan is in common use by native speakers of the language.

(4) Phonology is non-autonomous. Some phonetic processes depend on syntactic and morphological structures for their interpretation.

(5) Any one language code has a phonemic pattern which is analyzable and stateable.

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1.7 Methodology and Procedure

Linguists differ considerably from one another in their methods of studying a language. In terms of linguistic units, levels, and direction of analysis and description, one school of thought advocates proceeding from sound to sentence, while another moves conversely, i.e., from sentence to sound.

The present study is oriented to both methods: it proceeds from wholes (utterances) to parts (segments and supra-segments) and then to wholes (generalizations or rules).

The taxonomic procedure of segmentation and classification will be employed in this phonology of Ilokano. Given the raw material of speech - the sample set of meaningful utterances represented as strings of sound segments or phones - the first task will be to identify the recurring speech sounds and to describe how they are produced. The principles of articulatory phonetics will dominate in this study for the simple reason that many aspects of speech can be described more easily and simply in articulatory terms than in acoustic terms. The acoustic parameters of sound such as stress, length, juncture, pitch and intonation will, however, be considered.

The next step is phonemization which involves classifying the variant etic units into invariant (under certain conditions) functional units, the phonemes and prosodemes.

After the emic units of the dialect have been established, general statements about their basic patterns or
regularities of co-occurrence relations are formulated. The generalizations will be stated in the form of phonological rules.

In sum, the analytic-synthetic method will be employed in this study. The steps are as follows:

(a) Segmentation or Phonetic Analysis: Segmenting the sample Ilokano utterances (the phonetic data) into etic units; and describing the characteristics and production of each recurrent unit;

(b) Phonemization or Phonemic Analysis: Classifying the etic units into the "emes" of the Ilokano dialect; and;

(c) Generalization: Stating generalities - the phonological rules - about the patterns of emic combinability.

The descriptive procedure in all the three steps; particularly (b) and (c), employs the trimodal theory of analysis;

Contrast
Unit = Variation
Distribution

which is discussed at length in Sec. 4.23 of this thesis.
Chapter 2

METHODOLOGICAL PRELIMINARIES

Certain referential frames which are basic to the understanding of the detailed phonetic and phonemic analyses and descriptions of Ilokano require discussion in this chapter. These include (1) the organs of speech, (2) the types of speech sounds and the ways in which they are classified and described, (3) the syllable, (4) transcription signs and symbols, and (5) the phonetic data.

2.1 The Organs of Speech

The primacy of articulatory phonetics in this study of Ilokano speech sounds supposes an identification of the organs of the body directly involved in phonation, the so-called "organs of speech."

Generally, speech sounds are produced with the outgoing breath stream. The perceived differences in speech sounds while one is speaking are the result and correlate of the control and modification of the outgoing lung air in various ways at one or more points in the vocal tract.

The speech organs which control and modify the egressive breath stream are either movable or stationary. The movable parts, called articulators, include the lips, tongue, velum, uvula, vocal bands, and of course the lower jaw. Articulations involving the tongue can be specifical-
ly described in terms of its subdivisions, namely, tip, blade, front, back, and root. The stationary parts include the teeth, alveolar ridge or gum ridge, hard palate, velum or soft palate, and the back wall of the pharynx. Fig. 2 on the next page shows these articulatory structures as well as the four resonance chambers: oral cavity, nasal cavity, the pharynx, and the larynx. The larynx containing the vocal bands is the lowest place of articulation.

2.2 Types of Speech Sounds

Speech is a continuum of sounds in which each unit merges imperceptibly into another. For the purpose of description, it may be segmented into discrete elements in order to analyze and symbolize the articulatory movements involved in its production. The sound segments resulting from such quantization are, therefore, to be considered as mere abstractions of the physical phenomenon of speech.

The stream of speech of Ilokano is to be segmented and classified into two main types:

(1) Contoids, those speech sounds which are articulated with complete stop or audible friction. The outgoing air stream is obstructed at one or more points in the

The terms vocoid and contoid used in recent phonetic literature to designate the phonetic types as distinguished from the vowel-consonant phonemic categories, are due primarily to Kenneth L. Pike. See his Phonemics: A Technique for Reducing Languages to Writing, Ann Arbor: The University of Michigan Press, 1964, pp. 13, 14, 24.
Fig. 2. Cross section of the head showing the organs most directly involved in the production of speech-sounds.

Oral Cavity (Mouth)
Nasal Cavity
Velum (Soft Palate)
Hard Palate
Alveoles (Gumridge)
Lips
Teeth
1. Tip
2. Blade
3. Front
4. Back
5. Root
Tongue
Vocal Bands
Larynx
Pharynx
Epiglottis
Esophagus
Trachea

vocal tract either by stopping the passage of air completely or by forcing it into narrow channels producing audible friction.

(2) **Vocoids**, sounds produced with the continuous stream of air passing through resonance chambers, - e.g., through the larynx and finally out through the oral or nasal cavity - relatively unimpeded and without producing any audible friction. Vocoids function as syllable nuclei.

Intermediate between the two types are the **semi-contoids**. These are vocoids patterning as contoids. They are not syllabic.

A sequence of two vocoids produced with a single emission of the voice is a **vocoid chain**.

2.21 How Vocoids are Described and Classified

A vocoid description is based mainly on auditory judgments of sound relationships. Since there is no contact of the tongue with the roof of the mouth, only the lip shape can be described by visual or tactile means. Differences in the degrees of tongue elevation and tongue advancement are so minute that it is impossible to assess them quite accurately. It is not feasible to say, for instance, that a given Ilokano vocoid is produced with the

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23 The term *vocoid chain* is used at the strictly phonetic level in this study - in parallel terminology with vocoid and contoid. *Diphthong* will be used to refer to the same sound sequences at the phonemic level.
back of the tongue raised to within 4 millimeters of the velum.

A finer description of vocoids can be achieved by reference to the phonetic grid which linguists call the Cardinal Vowel Scale. It consists of a series of eight basic vowels of known formation and acoustic qualities, independent of the vowel sounds of any particular language. "The selection of these eight cardinal vowels is based upon the principle that no two of them are so near each other as to be incapable of distinguishing words." These vowels and their positional relationships are shown on a trapezium below.

Fig. 3. The Eight Basic Cardinal Vowels

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The trapezium may be taken as a conventionalized representation of the human mouth, with the lips to the left and the pharynx to the right. The dots represent the relative positions of the tongue in the articulation of the vowels. In the cardinal vocoids [i] and [u] the tongue is raised as close as possible to the palate without friction being produced, and for C[æ], it is brought as low as possible with slight raising at the extreme back. These three sounds define what are known as the vowel limits—that is, if the tongue were raised even a fraction of an inch higher than C[i] or C[u], or retracted farther back than C[æ], the sounds produced would be fricative contoids. Thus, C[i]>[y], as in yet; C[u]>[w], as in wet; and C[æ]>[u] which, for typographical convenience, is written [R], as in the French word arbre [aRbr] 'tree'.

**Close, half-close, half-open, and open** refer to the degrees of tongue elevation (see Fig. 5). Starting from the C[i] position, the front of the tongue is lowered

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25 Ibid., p. 4.
26 Ibid., p. 5. (See values of the vowels on p. 27 of this thesis.
27 For consistency and brevity, the cardinal vowels will henceforth be called cardinal vocoids, and written as C[i], C[e], C[e], C[a], C[æ], C[æ], C[o], and C[u].
28 R. J. Gregg, op. cit., p. 52.
gradually at auditorily equidistant points representing the values for \( C[e, \varepsilon, a] \). From the \( C[a] \) position, the tongue is raised also at equidistant points representing the values given to \( C[\varepsilon, o, u] \).

Vocoids situated on the line 1-a or near to it are called front vocoids, and those in the line \( \alpha-u \) or slightly in advance of it, the back vocoids. The term central indicates that the highest point of the tongue is in the center of the mouth, midway between front and back. A triangular area representing the region of the central vocoid types is drawn separating the front vocoids from the back vocoids. The additional features are shown below.

![Fig. 4. The Central Vocoid Triangle](image-url)
The values of the different cardinal vocoids may be illustrated from different types of English in which the vocoid types are found:

<table>
<thead>
<tr>
<th>Vocoid</th>
<th>Pronunciation</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i] see</td>
<td>[sɪː]</td>
<td>(General)</td>
</tr>
<tr>
<td>[e] day</td>
<td>[deː]</td>
<td>(Scottish)</td>
</tr>
<tr>
<td>[ɛ] get</td>
<td>[gɛt]</td>
<td>(Northern British English)</td>
</tr>
<tr>
<td>[æ] back</td>
<td>[bæk]</td>
<td>(Northern British English)</td>
</tr>
<tr>
<td>[ɑ] hot</td>
<td>[hɒt]</td>
<td>(Scottish)</td>
</tr>
<tr>
<td>[ɔ] coat</td>
<td>[koːt]</td>
<td>(Scottish)</td>
</tr>
<tr>
<td>[u] too</td>
<td>[tuː]</td>
<td>(General)</td>
</tr>
<tr>
<td>[ə] about</td>
<td>[əˈbaʊt]</td>
<td>(General)</td>
</tr>
</tbody>
</table>

Ilokano vocoid articulations are to be described and classified according to four criteria, namely:

1. tongue height - close, half-close, half-open, open;
2. tongue advancement - front, central, back;
3. tenseness or laxness; and
4. lip position - spread, neutral, rounded.

All Ilokano vocoids are of the oral type. Therefore, the position of the velum - i.e., raised for oral vocoids, lowered for nasalized vocoids - is not distinctive. Tenseness and laxness are not distinctive either - may be safely ignored.

---

The lip-tongue positional relationship is summed up in the principle of normal vowel opposition or bipolarity: i. e., the front vocoid series [i, e, e, a] and [u] of the back series are pronounced with lips spread or open and pulled back, whereas in the three other back vocoids [o, o, u], the lips are rounded in varying degrees and are pushed forward.

The relationships between the features of tongue height and tongue advancement are shown as a matrix, thus:

Fig. 5. Vocoid Matrix
2.22 How Contoids are Described and Classified

For the articulatory description of Ilokano contoids, two factors are to be considered, namely, (1) point of articulation, and (2) manner of articulation. The presence or absence of vocal band vibration characterized as voiced or voiceless (breathed), respectively, is also taken into account.

Point of articulation refers to the place of contact or near contact of an articulator with another articulator, or with a stationary part (Sec. 211). The following linguistic terms are used to describe the articulatory structures involved in relation to their speech function:

<table>
<thead>
<tr>
<th>Linguistic Terms</th>
<th>Structures Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilabial (or labial)</td>
<td>both lips</td>
</tr>
<tr>
<td>Labio-dental</td>
<td>lower lip, upper teeth</td>
</tr>
<tr>
<td>Dental</td>
<td>tongue tip and rim, upper teeth</td>
</tr>
<tr>
<td>Alveolar</td>
<td>tongue blade, or tip and blade, alveolar ridge or gum ridge</td>
</tr>
<tr>
<td>Retroflex</td>
<td>tongue tip, hard palate</td>
</tr>
<tr>
<td>Palatal</td>
<td>tongue back, hard palate</td>
</tr>
<tr>
<td>Velar</td>
<td>tongue back, soft palate</td>
</tr>
<tr>
<td>Uvular</td>
<td>tongue back, extreme back, of velum known as the uvula</td>
</tr>
<tr>
<td>Glottal</td>
<td>vocal bands</td>
</tr>
</tbody>
</table>
Manner of articulation refers to the degree of obstruction - ranging from complete closure to slight narrowing - made by the speech organs at the point of articulation. In terms of manner of articulation, the Ilokano contoids are to be classified into the following types, enumerated in decreasing degrees of closure:

- Plosive
- Nasal
- Lateral
- Flap
- Fricative
- Semivocoid

These contoid types are described in detail in Sec. 3.22 along with the speech segments which constitute them.

The relationship between the two dimensions of contoid articulation can be regarded as a matrix in which the columns represent the point of articulation, and the rows, the manner of articulation. A pairing of the voiced (v) and breathed (b) varieties of the contoids appear at the point of intersection.

The contoids of Ilokano are to be charted and described in terms of the matrix shown in Fig. 6.
2.3 The Syllable: Its Function and Structure

The syllable, a phonological unit, is the basic framework within which the relative distribution and possibilities of occurrence of phones and phonemes can be stated. Thus, Ilokano phonemes of ambivalent status such as the semivowels /w/ and /y/ may be categorized as either consonants or vowels depending upon how they pattern with other consonants or vowels in the syllable. Furthermore, since Ilokano has a syllable-timed rhythm, a satisfactory description of the suprasegmental feature of stress can be made with respect to the syllable structure of word forms.

"The syllable," Einar Haugen states, "is the smallest unit of recurrent phonemic sequences" which consists of

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Labio-Dental</th>
<th>Dental &amp; Alveolar</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semivocoid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
"an irreducible minimum which we may call the **nucleus** and
an optional remainder which we may call **margin**. Margins
in turn may either precede or follow the nucleus... Each
of the constituents of the syllable consists of one or
more phonemes, with vowels usually occupying the peak, the
consonants the margins."

In this study, the pre-nuclear margin and the post-
nuclear margin are - adopting the terms invented by C. F.
Hockett - referred to as **onset** and **coda**, respectively.

Many linguists speak of the nucleus as the "peak
of sonority" in the syllable, and of the vowels - being
more sonorous than consonants - as the syllable nuclei.
The main function of a vowel, therefore, is syllabification,
and a consonant that of initiating and terminating a sylla-
bale. For example, the six vowels, /a u i o e/, represent
the six syllables in the Ilokano word _aggurgurigoren_ /qag
gur gu rif go ren/ 'He has a fever now.'

By Hockett's classification of syllable systems,
Ilokano is of "the **onset-peak** type... in that every syllable
includes both an onset and a peak; it may or may not include
also a coda." This writer takes it that the obligatory

---

30 Einar Haugen, "The Syllable in Linguistic Descrip-
tion," in Morris Halle, and others, (eds.), *For Roman
onset includes the glottal stop, /q/, because although printwise a syllable begins with an orthographic symbol representing a vowel, e. g., a in ala 'get', phonetically, there is a glottal obstruction (symbolized by [q]) preceding the articulation of the vocoid - i. e., [qa]. This prevocalic glottal obstruction can be perceived by slightly pressing the fingers on the "Adam's apple" while articulating i, e, a, o, u, thus: [qi], [qe], [qa], [qo], [qu].

To Haugen and Hockett, the coda is optional. The writer, however, believes that for Ilokano it is only the syllables in initial and medial positions which "may or may not include also a coda;" in final position, the syllable ending with an orthographic symbol representing a vowel sound, e. g., -la in ala, is closed by a glottal stop. She postulates a post-vocalic-glottal-stop coda in such final syllables, since this is clearly perceptible in ala ['qa ləq'], and comes out equally clearly when a suffix is added, e. g., in alaen [qa 'la qen] 'to get'. Other examples will further illustrate the concept of the glottal-stop onset and coda, thus:

```
al-o  /qâl qoq/  'pestle'
tal-o  /tal qôq/  'lift'
alto   /qâl toq/  'alto'
agaltoak  /qa gal tô qak/  'I'll sing alto'
agaltoka  /qa gal tô kaq/  'You'll sing alto'
```
Although the glottal stop, /q/, is not reflected in the conventional orthography, it is structurally relevant to the Ilokano syllable system, and will be so indicated in this study.

Ilokano exhibits the following syllable structures:

<table>
<thead>
<tr>
<th>CV</th>
<th>ubing</th>
<th>/qu biŋ/</th>
<th>'child'</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVC</td>
<td>nganga</td>
<td>/ja pəŋ/</td>
<td>'open mouth'</td>
</tr>
<tr>
<td>CCV</td>
<td>blusa</td>
<td>/blu saŋ/</td>
<td>'blouse'</td>
</tr>
<tr>
<td>CCVC</td>
<td>trenta</td>
<td>/trəŋ taŋ/</td>
<td>'thirty'</td>
</tr>
<tr>
<td>CVCC</td>
<td>komiks</td>
<td>/kə miŋks/</td>
<td>'comics'</td>
</tr>
<tr>
<td>CVv</td>
<td>waya</td>
<td>/wa pəŋ/</td>
<td>'spare time'</td>
</tr>
<tr>
<td>CCVv</td>
<td>lualo</td>
<td>/luq loŋ/</td>
<td>'prayer'</td>
</tr>
<tr>
<td>cVC</td>
<td>wang-it</td>
<td>/waŋ qit/</td>
<td>'head shake'</td>
</tr>
<tr>
<td>CVv</td>
<td>nguy-a</td>
<td>/nuy qaŋ/</td>
<td>'agony'</td>
</tr>
<tr>
<td>CCVv</td>
<td>duyaw</td>
<td>/duq aw/</td>
<td>'yellow'</td>
</tr>
<tr>
<td>CcVv</td>
<td>ruay</td>
<td>/ruə/</td>
<td>'abundance'</td>
</tr>
<tr>
<td>CCCV</td>
<td>empleado</td>
<td>/qem plya doŋ/</td>
<td>'employee'</td>
</tr>
<tr>
<td>CcCVC</td>
<td>nasaprian</td>
<td>/na sap pryən/</td>
<td>'rain-sprinkled'</td>
</tr>
</tbody>
</table>

In summary, the syllable structures (SS) of Ilokano can be briefly described using the following rules:

Onset Nucleus Coda

SS Rule 1: \[ S_{1}^{\text{CV}} \rightarrow (C)(C)C V (C)(C) \]

SS Rule 2: \[ S_{r} \rightarrow (C)(C)C V C(C) \]

SS Rule 3: \[ S_{d}^{\text{CV}} \rightarrow \{ (C)c \} V v \]
Where:

\[ C = \text{Consonant} \]
\[ V = \text{Vowel} \]
\[ c = \text{Semiconsonant} \]
\[ v = \text{Semivowel} \]
\[ S_{i} = \text{Syllable in initial or medial position} \]
\[ m \]
\[ S_{f} = \text{Syllable in final position} \]
\[ S_{d_{i}} = \text{Syllable, with a diphthong,} \]
\[ m \]
\[ f \]
\[ S_{d_{m}} = \text{in initial, medial, or final position} \]

2.4 Transcription Signs and Symbols

The phonetic and phonemic transcriptions in this thesis make use of the conventional symbols of the International Phonetic Association, with some additions used by many British and American phoneticians today. It will be noted, however, that some of the signs and symbols have been modified to suit the grammar of the Ilokano dialect under study, as well as for typographical convenience. Thus, the

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33 For the phonemic interpretations of \(/w/\) and \(/y/\) as \(c\) or \(v\), see Sec. 4.2511 of this thesis.

symbols, [e], [a], and [o], which have the qualities of "[e], c[Ω], and c[Ω], respectively, are used in this study since, in Ilokano, there is no contrast involved, either phonetically or phonemically, between [e] and [ε]; between [a] and [Ω]; and between [o] and [Ω]. The symbols [I] and [U] stand for [I] and [U], respectively.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Example</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>ima</td>
<td>['qi:.møq] 'hand'</td>
</tr>
<tr>
<td>[I]</td>
<td>bitbit</td>
<td>['bIt.'bIt] 'load'</td>
</tr>
<tr>
<td>[e]</td>
<td>verde</td>
<td>['ver.deq] 'green'</td>
</tr>
<tr>
<td>[ə]</td>
<td>petpet</td>
<td>['pøt.'pøt] 'grasp'</td>
</tr>
<tr>
<td>[a]</td>
<td>bado</td>
<td>['ba:.doq] 'dress'</td>
</tr>
<tr>
<td>[α]</td>
<td>bato</td>
<td>['ba.'toq] 'stone'</td>
</tr>
<tr>
<td>[o]</td>
<td>bola</td>
<td>['bo:.loq] 'ball'</td>
</tr>
<tr>
<td>[u]</td>
<td>buok</td>
<td>['bU.'qok] 'hair'</td>
</tr>
<tr>
<td>[u]</td>
<td>ulo</td>
<td>['qu:.loq] 'head'</td>
</tr>
<tr>
<td>[p]</td>
<td>papag</td>
<td>['pa:.pøg] 'bamboo bench'</td>
</tr>
<tr>
<td>[t]</td>
<td>tatang</td>
<td>['ta:.tøq] 'father'</td>
</tr>
<tr>
<td>[k]</td>
<td>kuko</td>
<td>['kU.'koq] 'fingernail'</td>
</tr>
<tr>
<td>[b]</td>
<td>babai</td>
<td>['ba.'ba:.qIq] 'girl'</td>
</tr>
<tr>
<td>[d]</td>
<td>dagidi</td>
<td>['da.gI.'diq] 'those'</td>
</tr>
<tr>
<td>[g]</td>
<td>gaget</td>
<td>['ga.'get] 'diligence'</td>
</tr>
<tr>
<td>[m]</td>
<td>nammeg</td>
<td>['ma.'meg] 'oppression'</td>
</tr>
<tr>
<td>Symbol</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>[']</td>
<td>Phonetic stress (before the stressed syllable)</td>
<td>daydlay [daj.'dyaI] 'that'</td>
</tr>
<tr>
<td>/'\</td>
<td>Phonemic stress (above the vowel of the stressed syllable)</td>
<td>/day dy̞̆y/</td>
</tr>
<tr>
<td>['&quot;]</td>
<td>Palatalization (above the contoid)</td>
<td>[daj.'dyaI]</td>
</tr>
<tr>
<td>[:]</td>
<td>Length: the sound represented by the preceding letter is long</td>
<td>init [qi:.nIt] 'sun', ut-ot [qUt:.'qot] 'pain', dakkel [dqk.'kel] 'big'</td>
</tr>
</tbody>
</table>

Note: Consonant length is realized as gemination.
[4] Very high pitch level
[3] High pitch level
[2] Normal pitch level
[1] Low pitch level
[] Level intonation and
short pause
[] Falling intonation and
long pause
[] Rising intonation and
long pause
[] Rising-falling intonation
and long pause
[] Falling-rising intonation
and long pause
[ ] Brackets to enclose etic
transcriptions
// Slashes to enclose emic
transcriptions
[.] Single dot to mark syllable
boundary in etic transcriptions; replaced by a
letter space in emic transcriptions
# # Crossed bars to enclose
morphemes

Nakapinpintas!
[1naka 4'pin3pIn2tøs]
'It's very beautiful!'
Ngem. [jem] 'But,...'

Napintas. [2na.'pin1tøs]
'It's beautiful.'

Napintas? [2na.'pin3tøs]
'It's beautiful?'

Ay, wen. [1qal 2'wen]
'Oh, yes (Sure, it is).'

Agpayso? [2qal.pnI.'soq]
'Is it true (or...)?'

luto [lu: .toq] 'cook'
/lû toq/

'cook' 'I'
2.5 **Phonetic Data**

This section includes a corpus of utterances occurring in Ilokano from which all the recurring speech sounds may be picked out and specified, and on which statements about the distributional relationships among the features of the sounds are based. The corpus as a sample of the language—more specifically, of the Ilokano dialect in question—is admittedly restricted, i.e., it is not exhaustive enough
to include all possible distributional details of each speech sound. This limitation, however, is not reason enough to consider the subsequent generalizations invalid. The gaps in the corpus will be filled in by the copious examples interspersed in the discussions. Moreover, the generalizations are to be taken to apply to the dialect as a whole and not to the corpus alone.

Ti Amian ken ti Init

Agsinsinnungbat ti amian ken ti init no ania kada-kwada nga dua ti napigpigsa, idi husto nga sumungad ti maysa nga viahero nga adda naimeng nga kagay na nga kasla kapa ti reyna. Nagtulag da nga no ania kadakwada ti agballigi nga mangpauksob iti viahero iti kagay na, isu ti makuna nga napig-pigsa. Saan a nabayag, nagpug-ay ti amian iti nakapigpigsa, ket uray la nga naguy-oy ti dila na. Ngem, no kasano ti pigsa ti panagpug-ay na, ad-adda pay nga inkayetket a firme ti via-hero ti kagay na iti bagi na; ket kamaudianan na, saan nan nga intuloy ti nagpug-ay. Nagtalna ket nagpaliw. "Mapauksob ngata ti init daydiay viahero?" sinaludsod na iti bagi na.

Idi kuan, limgak ti init. Nadagaang ti aldaw, ket dagus a naguksob ti viahero. Anansa ngarud, inkapilitan nga inannugot ti amian nga napigpigsa ti init ngem iti isu.

35

An Ilokano translation of "The Northwind and the Sun," International Phonetic Association, op. cit., p. 20. It has been considerably modified and augmented to include all the speech sounds occurring in the Ilokano dialect.
The Northwind and the Sun

Arguing the northwind and the sun

if which of them two the stronger

when just then approach the one traveler.

who had warm cloak his that is like cape of queen. Agreed they that if which of them

the successful to make undress the traveler the cloak his, he the said stronger. Not

long time blew the northwind very strong

and until dangle the tongue his. But, if however
the strength the blowing his all the more that
huddled up firmly the traveler the cloak his to
body his and finally not anymore he
continued the blowing. Kept still and observed.
"Can make undress probably the sun that traveler?"
asked he to self his. Then shone out
the sun. Warm the day and immediately
undressed the traveler. Therefore,

that stronger the sun than he.
Chapter 3

THE SOUNDS OF SPEECH: A PHONETIC ANALYSIS

Speech, it must be re-emphasized, is a continuum of different articulations produced by the vocal organs; the division of this continuum into discrete segments and suprasegments is an abstraction, an artificial process, nevertheless, a sine qua non in linguistics. As Nadel aptly puts it, "If scientific insight is insight into the order of things, observation must be directed towards breaking up the continuum of data into units - units which can be manipulated or ordered in a fashion more systematic than the ambiguous and fortuitous ordering inherent in naive observation." It is, however, only the record of the speech event that can be segmented and manipulated.

This chapter is concerned with a detailed phonetic description of the raw materials of speech - the different segmental sounds and suprasegmental features - extracted from the corpus of utterances recorded in Section 2.5 of this thesis.

The phonemization procedures in the next chapter will reveal that not all of the etic units enumerated and described here will ultimately prove to be separate emic units of the dialect.

---

3.1 PHONETIC CHARTS

3.1.1 The Segmental Sounds

Fig. 7. Ilokano Vocoids

Fig. 8. Ilokano Vocoid Chains
### Fig. 9: A Chart of Ilokano Consonants

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Labio-Dental</th>
<th>Dental &amp; Alveolar</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>[p]</td>
<td>[t]</td>
<td>[k]</td>
<td>[q]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[b]</td>
<td>[d]</td>
<td>[g]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>[m]</td>
<td>[n]</td>
<td>[ŋ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td>[l]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flap</td>
<td></td>
<td>[r]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>[f]</td>
<td>[s]</td>
<td></td>
<td>[h]</td>
<td>[]</td>
</tr>
<tr>
<td></td>
<td>[v]</td>
<td></td>
<td></td>
<td></td>
<td>[h]</td>
</tr>
<tr>
<td>Semivocoid</td>
<td>[w]</td>
<td>[y]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.12 The Suprasegmental Features

**Length:**
- [q1:nIt] 'sun'
- [qam.myan] 'northwind'

**Stress:**
- ['da.gUs] 'immediately'
- [sU.'mu.ŋad] 'to approach'
- [na.p1g.p1g.'saq] 'stronger'
Pitch, \[ \text{\textquoteleft\textquoteleft qI.dI \textasciitilde kwA:n I IIm.'gak ti 'qi:.nIt\textquoteright\textquoteright} \]

Intonation, 'Then the sun shone out.'

& Juncture: \[ \text{\textquoteleft\textquoteleft ma.pA.quk.'sob ya.ta ti 'qi:.nIt daI.dyAI vyA.'he:.roq\textquoteright\textquoteright} \]

'Can the sun make the traveler take off his cloak?'

3.2 THE SEGMENTS IN DETAIL

3.21 Vocoids

All the vocoids of Ilokano, like those of French, are pure and simple, i.e., they do not have the diphthongal quality of the English vocoids. The following are examples compared in terms of C[1]:

Ilokano: \textbf{biit} [bl.'qit] 'for a moment'

French: \textbf{vite} [vit] 'fast'

English: \textbf{beat} [biyt] (Standard English)

Vocoid length and stress are interrelated. The strength of pronunciation modifies the quantity of [i,e,a,o,u]. In fact, some linguists use the term, \textit{strength}, as a portmanteau form of \textit{stress} plus \textit{length}. Considering the stress-length co-occurrence, at least in non-final syllables in Ilokano, the length symbol, [:], can be safely left out in the examples following each vocoid description.

The treatment of each Ilokano vocoid includes an articulatory description and an assessment of quality in terms of the Cardinal Vowel Scale, and examples of distributional features in utterance and syllable.
The Front Vocoids: \( [i, I, e, a] \)

3.2111 \( [i] \)

\( [i] \) is the closest of the Ilokano front vocoids. It is articulated with the front of the tongue slightly backed and raised to a height just below the close front position of \( C[i] \); the teeth nearly in occlusion; and, with the lips spread and drawn back. This speech sound may be classified as a close, front, tense, rounded vocoid.

The Ilokano \( [i] \) occurs only in stressed syllables, in all positions.

\( [i] \) in initial syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bilang</td>
<td>['bi.laŋ]</td>
<td>'number'</td>
</tr>
<tr>
<td>dila</td>
<td>['di.laŋ]</td>
<td>'tongue'</td>
</tr>
<tr>
<td>gita</td>
<td>['gi.taŋ]</td>
<td>'venom'</td>
</tr>
<tr>
<td>init</td>
<td>['qi.niŋ]</td>
<td>'sun'</td>
</tr>
<tr>
<td>kilo</td>
<td>['ki.loŋ]</td>
<td>'kilogram'</td>
</tr>
<tr>
<td>lipay</td>
<td>['li.paiŋ]</td>
<td>'a leguminous vine'</td>
</tr>
<tr>
<td>miki</td>
<td>['mi.kiŋ]</td>
<td>'noodle'</td>
</tr>
<tr>
<td>nipa</td>
<td>['ni.paiŋ]</td>
<td>'a species of palm'</td>
</tr>
<tr>
<td>ngina</td>
<td>['ni.ngaŋ]</td>
<td>'price; value'</td>
</tr>
<tr>
<td>pilaw</td>
<td>['pi.laŋ]</td>
<td>'blemish'</td>
</tr>
<tr>
<td>rimas</td>
<td>['ri.maŋ]</td>
<td>'breadfruit'</td>
</tr>
<tr>
<td>sika</td>
<td>['si.kiŋ]</td>
<td>'dysentery'</td>
</tr>
<tr>
<td>tibung</td>
<td>['ti.buŋ]</td>
<td>'vibration'</td>
</tr>
</tbody>
</table>

All positions means initially, medially, and finally in the utterances. The examples are arranged according to the indicated
[i] in medial syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>IPA</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ibingay</td>
<td>[jU.'bi.gai]</td>
<td>to share with</td>
</tr>
<tr>
<td>adigi</td>
<td>[qa.'di.qI]</td>
<td>'post'</td>
</tr>
<tr>
<td>sagiden</td>
<td>[sa.'gI.qen]</td>
<td>'to touch'</td>
</tr>
<tr>
<td>ahitan</td>
<td>[qa.'hi.tan]</td>
<td>'to shave'</td>
</tr>
<tr>
<td>pit-ingan</td>
<td>[pIt.'qi.qen]</td>
<td>'to chip off'</td>
</tr>
<tr>
<td>akikid</td>
<td>[qa.'ki.kId]</td>
<td>'narrow'</td>
</tr>
<tr>
<td>ulila</td>
<td>[qU.'li.laq]</td>
<td>'orphan'</td>
</tr>
<tr>
<td>kamiring</td>
<td>[ka.'mi.ri.q]</td>
<td>'nettle rash'</td>
</tr>
<tr>
<td>manipud</td>
<td>[ma.'ni.pud]</td>
<td>'start from'</td>
</tr>
<tr>
<td>napintas</td>
<td>[na.'pin.tas]</td>
<td>'beautiful'</td>
</tr>
<tr>
<td>barikes</td>
<td>[ba.'ri.kes]</td>
<td>'belt; girdle'</td>
</tr>
<tr>
<td>kusilap</td>
<td>[kU.'si.lap]</td>
<td>'pout'</td>
</tr>
<tr>
<td>batibat</td>
<td>[ba.'ti.bat]</td>
<td>'nightmare'</td>
</tr>
<tr>
<td>kawitan</td>
<td>[ka.'wi.tan]</td>
<td>'rooster'</td>
</tr>
</tbody>
</table>

[i] in final syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>IPA</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ubing</td>
<td>[qU.'biq]</td>
<td>'child'</td>
</tr>
<tr>
<td>diding</td>
<td>[di.'diq]</td>
<td>'wall'</td>
</tr>
<tr>
<td>rugi</td>
<td>[rU.'giq]</td>
<td>'beginning'</td>
</tr>
<tr>
<td>sull</td>
<td>[su.'qiil]</td>
<td>'pry or lever'</td>
</tr>
<tr>
<td>baki</td>
<td>[ba.'kiq]</td>
<td>'chicken coop'</td>
</tr>
<tr>
<td>nagalis</td>
<td>[na.'gai.'liq]</td>
<td>'slippery'</td>
</tr>
</tbody>
</table>

Position of occurrence of the sound in the utterance, e.g., if the sound in question is indicated as occurring in utterance final, the utterances are enumerated according to the alphabetical order of their final syllables.
ikumit [qI.kU.'mit] 'to entrust'
dandani [døn.da.'niq] 'almost'
kupin [kU.'pin] 'fold'
tagari [tₙ.qₙ.'riq] 'talk, prattle'
pusit [pU.'sit] 'squid'
pating [pₙ.'tiŋ] 'whale'
awit [qₙ.'wit] 'load'

3.2112 [I]
The close, front, semi-tense, vocoid, [I], is produced with the tongue tip nearer to center than to front, and raised just above the half-close position of C[e]; lip and tongue muscles are relatively lax compared with the tension for [i].

[I] occurs in unstressed syllables in all positions.

[I] in initial syllable:

bigat [bI.'gat] 'morning'
dildilan [dI₁.'dI₁.₁an] 'to lick, lap'
gita [gI.taq] 'oily taste of nuts'
ited [qI.'ted] 'give'
kikit [kI.'kit] 'ear finger'
libas [lI.'bas] 'a species of flowering vine'
milat [mI.'lat] 'grime'
pilaw [pI.'laU] 'pool of stagnant water'
rikept [rI.'kep] 'shutter'
sika [sI.'kaq] 'you'
tiritir [tI.'ri.trI] 'twist, wring'
wingiwing [wI.'ŋI.wIŋ] 'to shake the head in dissent'
[I] in medial syllable:

rabii [ra bi 'qi] 'night'
agadiwara [qa ga di 'wa ro] 'diffuse fragrance'
rugitan [ ru gi 'ta] 'to soil'
naqiro [na ki 'ro] 'disorderly, confusing'
aglibak [qa gi 'bak] 'to refrain from divulging'
maminsan [ma mi 'san] 'once'
aniniwan [qa ni 'win] 'shadow'
kanginaan [ka ni 'qan] 'the most expensive'
kupinen [ku pi 'nen] 'to fold'
karison [ka ri 'son] 'cart pulled by an ox'
kasinsin [ka si 'sin] 'cousin'
kutingi [ku ti 'ni] 'the smallest of a litter'
siwiwidawid [si wi wi 'da wi] 'empty-handed'

[I] in final syllable:
tagibi [ta gi 'bi] 'foster child'
padi ['pa di] 'priest'
aggidigid [qa gi 'di gi] 'to rub against a post'
suil ['su uil] 'a kind of hoe'
lalaki [la la 'ki] 'boy, man'
sabali [sa 'ba li] 'another'
amin ['qa mi] 'all'
agani [qa 'ga ni] 'harvester'
angin ['qa ni] 'wind'
paipit  [pa.'qi.pIt]  'carpenter's vise'  
saririt  [sa.'ri.rIt]  'sagacity'  
nakusim  [na.'ku.sIm]  'fastidious in food'  
kamatis  [ka.'ma.tIs]  'tomato'  
kawiwit  [ka.'wi.wIt]  'to clasp with the legs'

3.2113  [e]

Articulation of the Ilokano vocoid [e] calls for a tongue position lower and more centered than that for C[e], and just above the tongue height for C[e]. The tongue is humped toward the front of the mouth, the jaw open wider than that for C[e], and the lips spread and only slightly retracted. This half-open, front, spread, tense vocoid occurs in both stressed and unstressed syllables, in all positions.

[e] in stressed initial syllable:

@Belo  ['be.loq]  'short for Isabelo'
@fecha  ['fet.tyq]  'date'
@gerra  ['ger.raq]  'war'
@hefe  ['he.feq]  'chief'
ken  ['ken]  'and'
@kendi  ['ken.dIq]  'candy'
@Leah  ['le.qaq]  'a girl's name'
met  ['met]  'also'
@medias  ['me.dyas]  'stockings'
@Nena ['ne.naq] 'a girl's name'
@pecho ['pet.tyoq] 'chicken breast'
@reses ['re.ses] 'recess'
@selyo ['sel.lyoq] 'stamp, seal'
@teles ['te.laq] 'fabric'
@verde ['ver.deq] 'green'
@wenno ['wen.noq] 'or'
@yerro ['yer.roq] 'galvanized iron roofing'

[e] in stressed medial syllable:
@kobeta [ko.'be.taq] 'toilet'
@kandela [kan.'de.taq] 'candle'
@Palguera [fal.'ge.taq] 'a family name'
@ahente [qa.'hen.teq] 'agent'
@bangkete [baŋ.'ke.taq] 'banquet'
@bisikleta [bi.sIk.'kle.taq] 'bicycle'
@America [qa.'me.re.kao] 'America'
@chinelas [tyl.'ne.las] 'slippers'
@supero [su.'pe.roq] 'soup bowl'
@sirena [si.'re.naq] 'siren; nymph'
@kasera [ka.'se.roq] 'landlord; tenant'
@kafetera [ka.fe.'te.roq] 'coffee pot'
@Severo [se.'ve.roq] 'a boy's name'

[e] in stressed final syllable:
rebbeng [reb.'beŋ] 'responsibility'
baddek [bad.'dek] 'step, tread'
| **raem** | [ra.'qem] | 'respect' |
| **@kefe** | [ka.'feq] | 'coffee' |
| **agek** | [qa.'gek] | 'kiss' |
| **@kehel** | [ka.'hel] | 'a variety of oranges' |
| **baket** | [ba.'ket] | 'old woman' |
| **ules** | [qU.'les] | 'blanket' |
| **simek** | [si.'mek] | 'utterance, conversation' |
| **buneng** | [bU.'neq] | 'bolo' |
| **tensenged** | [ten.'ned] | 'neck' |
| **reppet** | [rep.'pet] | 'bundle' |
| **gargaret** | [gar.ga.'ret] | 'belongings' |
| **pisel** | [pi.'sel] | 'pressure (hand)' |
| **artem** | [qar.'tem] | 'pickle' |
| **tawen** | [ta.'wen] | 'year; age' |
| **kuyemyem** | [kU.yem.'yem] | 'cloudy' |

[e] in unstressed initial syllable:

| **bengngat** | [ben.'nat] | 'accent in speaking' |
| **derreas** | [der.'ra.qas] | 'precipice' |
| **emma** | [qem.'maq] | 'meekness' |
| **getteng** | [get.'ten] | 'scissors' |
| **kebba** | [keb.'baq] | 'breathlessness' |
| **leppas** | [lep.'pas] | 'completion' |
| **melmel** | [mel.'mel] | 'mouthful' |
| **nengneng** | [neq.'neq] | 'stupid' |
| **ngernger** | [yer.'yer] | 'snarl, growl' |
peggad [peg.'gad] 'danger'
rebba [reb.'baq] 'wreckage'
seldan [sel.'dan] 'large water jar'
tengnega [ten.'paq] 'middle, center'
wenno [wen.'noq] 'or'
yegyeg [yeg.'yeg] 'tremble'

[e] in unstressed medial syllable:
nabenfebeng [na.ben.'ben] 'thick, close-woven'
agdeppa [qag.dep.'paq] 'to extend the arms sidewise'
paggelgelan [pag.ge.gel.ge.'lan] 'starch strainer'
agkedked [qag.ked.ked] 'to resist payment'
iseleksek [qI.sa.lek.'sek] 'to stuff'
dumenden [dU.men.'den] 'to move to a given point'
paneknek [pa.nek.'nek] 'proof'
dengngepen [den.ne.'pen] 'to apply hot compress'
agpessa [qag.pes.'saq] 'to hatch'
iremrem [qI.rem.'rem] 'to submerge'
salensenan [sd.len.se.'nan] 'to overburden'
agteddak [qag.ted.'dak] 'to burst abscesses'
ayek-ek [qA.yek.'qek] 'audible laughter'

[e] in unstressed final syllable:

pinakbet [pl.nak.bet] 'a kind of vegetable recipe'
sardeng ['sar.dej] 'stop'
laeng ['la.qen] 'only'
3.2114  [a]

The Ilokano [a], the openest of the front vocoids, is slightly centered. It is articulated with jaws and lips widely open, and with no part of the tongue coming in contact with the upper molars.

This open, front, lax vocoid occurs in stressed syllable in all positions:

[a] in initial syllable:

agum  ['qa.gum]  'greed, covetousness'
banga  ['ba nga]  'earthen pot'
<table>
<thead>
<tr>
<th>Term</th>
<th>Transcription</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>daniw</td>
<td>['da.nIU]</td>
<td>'lyric poem'</td>
</tr>
<tr>
<td>galip</td>
<td>['ga.lIp]</td>
<td>'slice'</td>
</tr>
<tr>
<td>kayo</td>
<td>['ka.yoq]</td>
<td>'tree'</td>
</tr>
<tr>
<td>langka</td>
<td>['lan.kaq]</td>
<td>'jackfruit'</td>
</tr>
<tr>
<td>mangga</td>
<td>['ma.y.goq]</td>
<td>'mango'</td>
</tr>
<tr>
<td>nanam</td>
<td>['na.nam]</td>
<td>'taste'</td>
</tr>
<tr>
<td>ngalug</td>
<td>['na.lUg]</td>
<td>'purslane (Portulaca oleracea)'</td>
</tr>
<tr>
<td>payong</td>
<td>['pa.yoq]</td>
<td>'umbrella'</td>
</tr>
<tr>
<td>ramay</td>
<td>['ra.mal]</td>
<td>'fingre'</td>
</tr>
<tr>
<td>sangi</td>
<td>['sa.nIq]</td>
<td>'molar tooth'</td>
</tr>
<tr>
<td>tabo</td>
<td>['ta.boq]</td>
<td>'a kind of dipper'</td>
</tr>
<tr>
<td>vale</td>
<td>['va.leq]</td>
<td>'credit coupon'</td>
</tr>
<tr>
<td>wasay</td>
<td>['wa.saI]</td>
<td>'axe'</td>
</tr>
<tr>
<td>yaman</td>
<td>['ya.man]</td>
<td>'thanks'</td>
</tr>
</tbody>
</table>

[a] in medial syllable:

<table>
<thead>
<tr>
<th>Term</th>
<th>Transcription</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>naata</td>
<td>[na.'qa.toq]</td>
<td>'unripe'</td>
</tr>
<tr>
<td>abaga</td>
<td>[qa.'ba.goq]</td>
<td>'shoulders'</td>
</tr>
<tr>
<td>ladawan</td>
<td>[la.'da.woq]</td>
<td>'picture'</td>
</tr>
<tr>
<td>sagaba</td>
<td>[sa.'ga.boq]</td>
<td>'sufferings'</td>
</tr>
<tr>
<td>akaba</td>
<td>[qa.'ka.boq]</td>
<td>'wide, broad'</td>
</tr>
<tr>
<td>balayang</td>
<td>[ba.'la.yoq]</td>
<td>'a variety of banana'</td>
</tr>
<tr>
<td>kamakam</td>
<td>[ka.'ma.kom]</td>
<td>'overtake'</td>
</tr>
<tr>
<td>kanawa</td>
<td>[ka.'na.woq]</td>
<td>'defense'</td>
</tr>
<tr>
<td>sungani</td>
<td>[sU.'na.nIq]</td>
<td>'contrary, opposite'</td>
</tr>
<tr>
<td>lapayag</td>
<td>[la.'pa.yoq]</td>
<td>'ear'</td>
</tr>
</tbody>
</table>
arasaw  [qa.'ra-sqU]  'rice washing'
lansangan  [lɔn.'sa.yan]  'street'
kawayan  [ka.'wa.yan]  'bamboo'
bayabas  [ba.'ya.bas]  'guava'

[a] in final syllable:
tay-ak  [tɔI.'qak]  'meadow'
saba  [sa.'baq]  'banana'
adda  [qad.'daq]  'there is, there are'
daga  [dɔ.'gaq]  'earth, land'
saka  [sa.'kaq]  'to redeem mortgaged property'
galad  [gɔ.'lad]  'rank, ability'
raman  [rɔ.'man]  'taste, flavor'
baknang  [bak.'narj]  'wealth; a wealthy person'
sanga  [sa.'gaq]  'branch'
tinapa  [tI.na.'paq]  'smoked fish'
nadaras  [na.da.'ras]  'quick'
rasa  [rɔ.'saq]  'large edible crab'
mata  [ma.'taq]  'eye'
lawag  [la.'wag]  'light'
laya  [la.'yaq]  'ginger'

3.2122 The Central Vocoids:  [ə, ɑ]
3.2121  [ə]

The Ilokano [ə], a central, lax vocoid, is articulated with neutral lip and tongue positions, i.e., the tongue, with
its rim in close contact with the upper molars, is midway between the height for C[e] and C[e]. In the phonetic context of the velar contoids, [k, g, y], however, the tongue may be slightly more raised and retracted, e.g., the medial and final syllables of *gettengek [ga.t.tə.yək] 'I cut it.' Generally, the Ilokano schwa, [ə], is produced with the least effort characteristic of any of the vocoids. Although, there are some Ilokano speakers who pronounce it with relative tenseness.

The vocoid, [ə], substitutes freely for [e] in all positions only in native Ilokano word forms, never in loan words.

3.2122 [α]

This normally short vocoid is articulated with lips and jaws more open than that for [ə] and more close than that for [a]. A shift from [a] to [α] brings the rim of the tongue in near contact with the upper molars. [α] may be classified as a half-open, lax, central vocoid.

In Ilokano, [α] occurs in unstressed syllables in all positions.

[α] in initial syllable:

ai-al [qal.'qal] 'laborious breathing'

babaw1 [bα.'ba.wIq] 'repentance'

38 Examples of loan words are marked @ in Sec. 3.113 of this thesis.
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dalayap</td>
<td>[da.'la.yap]</td>
<td>'lemon'</td>
</tr>
<tr>
<td>gandat</td>
<td>[gan.'dat]</td>
<td>'intention'</td>
</tr>
<tr>
<td>kalapaw</td>
<td>[ka.la.'paU]</td>
<td>'a hovel'</td>
</tr>
<tr>
<td>lastiko</td>
<td>[lats.tI.'koq]</td>
<td>'rubber band'</td>
</tr>
<tr>
<td>mamati</td>
<td>[ma.'ma.tIq]</td>
<td>'to believe'</td>
</tr>
<tr>
<td>nalaka</td>
<td>[na.la.'kaq]</td>
<td>'cheap, easy'</td>
</tr>
<tr>
<td>nganngani</td>
<td>[yan.'ja.nIq]</td>
<td>'almost'</td>
</tr>
<tr>
<td>papaya</td>
<td>[pa.'pa.yaq]</td>
<td>'papaya'</td>
</tr>
<tr>
<td>rangkap</td>
<td>[raq.'kap]</td>
<td>'donation'</td>
</tr>
<tr>
<td>sardam</td>
<td>[sar.'dam]</td>
<td>'evening'</td>
</tr>
<tr>
<td>tayab</td>
<td>[ta.'yab]</td>
<td>'flight'</td>
</tr>
<tr>
<td>wagwag</td>
<td>[wag.'wag]</td>
<td>'a variety of rice'</td>
</tr>
<tr>
<td>vantangay</td>
<td>[yan.'ta.yI]</td>
<td>'whereas'</td>
</tr>
</tbody>
</table>

[^] in medial syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>aalunusen</td>
<td>[qa.qa.lU.'nu.sen]</td>
<td>'can be eaten alone'</td>
</tr>
<tr>
<td>ababa</td>
<td>[qa.ba.'baq]</td>
<td>'short'</td>
</tr>
<tr>
<td>adayo</td>
<td>[qa.da.'yoq]</td>
<td>'far, distant'</td>
</tr>
<tr>
<td>agama</td>
<td>[qa.ga.'maq]</td>
<td>'father and child'</td>
</tr>
<tr>
<td>dakami</td>
<td>[da.ka.'miq]</td>
<td>'we'</td>
</tr>
<tr>
<td>kulalanti</td>
<td>[kU.la.lan.'tiq]</td>
<td>'firefly'</td>
</tr>
<tr>
<td>man mano</td>
<td>[man.ma.'noq]</td>
<td>'few'</td>
</tr>
<tr>
<td>panateng</td>
<td>[pa.na.'tenj]</td>
<td>'cold, catarrh'</td>
</tr>
<tr>
<td>sangapulo</td>
<td>[sa.ya.'pu.loq]</td>
<td>'ten'</td>
</tr>
<tr>
<td>sapata</td>
<td>[sa.pa.'taq]</td>
<td>'oath'</td>
</tr>
<tr>
<td>karatay</td>
<td>[ka.ra.'tal]</td>
<td>'knapsack'</td>
</tr>
</tbody>
</table>
pasaray [pa.\textipa{sa}.'ral] 'sometimes'
natalna [na.\textipa{t}a.'naq] 'peaceful'
wayawaya [wa.ya.'yaq] 'freedom, liberty'

[\textipa{a}] in final syllable:

baak [ 'ba.qak] 'aged'
baribar [ 'ba.ri.bar] 'crosswise'
dadag [ 'da.dag] 'ripening pods of legumes'
adelfa [qa.'del.foq] 'a flowering shrub'
sagad [ 'sa.gad] 'broom'
raha [ 'ra.haq] 'a Moro chieftain'
saka [ 'sa.kaq] 'foot'
dalan [ 'da.lan] 'road, way'
apaman [qa.'pa.man] 'as soon as'
ganat [ 'ga.nat] 'hurry'
gangat [ 'ga.gat] 'kindle'
kapes [ 'ka.pes] 'cotton'
nabara [na.'ba.roq] 'red-hot'
agbasa [qaq.'ba.soq] 'to read'
katawa [ka.'ta.waq] 'laughter'
kawayan [ka.'wa.yan] 'bamboo'

3.213 The Back Vocoids: [u; U; o]

3.2131 [u]

The Ilokano [u] is a close, back, tense, rounded vocoid. In its articulation the lips are almost puckered;
the jaws are parted about the same degree as for [i]; and
the tongue is raised as close as possible to the palate
without producing friction. The quality is that of C[u].

The Ilokano [u] occurs in stressed syllables in all
positions:

[u] in initial syllable:

- bulo ['bu.loq] 'a variety of bamboo'
- dulang ['du.loq] 'a low table'
- guyod ['gu.yod] 'pull'
- kudil ['ku.dil] 'skin'
- lugan ['lu.gan] 'ride; vehicle'
- musing ['mu.in] 'forehead'
- nupey ['nu.pey] 'although'
- pukaw ['pu.kaw] 'loss'
- rupe ['ru.pe] 'face'
- sukat ['su.kat] 'measurement'
- turog ['tu.rog] 'sleep'
- umok ['qu.mok] 'nest'
- yuyem ['yu.yem] 'overcast (weather)'

[u] in medial syllable:

- abungot [qo.'bu.no] 'a head wear'
- baduya [ba.'du.ya] 'banana or rice fritters'
- dugudug [Du.'gu.dUg] 'northeast wind'
- agkurang [qag.'ku.ro] 'insufficient'
- kulukol [kU.'lu.kol] 'auger'
maidumudum  [ma.'qi.dU.'mu.dUm]  'to fall prone'
panunot  [pa.'nu.not]  'thought'
anguyob  [qa.'nu.yob]  'blowpipe'
malapunos  [ma.la.'pu.nos]  'to be flooded'
murumor  [mu.'ru.mor]  'seedling'
asukar  [qa.'su.kar]  'sugar'
patupat  [pa.'tu.pat]  'rice pudding wrapped in plaited palm leaves'
inaudi  [qi.na.'qu.dIq]  'younger sibling'
ayuyang  [qa.'yu.yag]  'resort'

[u] in final syllable:
abut  [qa.'but]  'hole'
adu  [qa.'duaq]  'many'
gugut  [gU.'gut]  'gum (of the teeth)'
parikut  [pa.rI.'kut]  'problem, difficulty'
salup  [sa.'lup]  'a measure of capacity equal to three liters'
mamutmut  [ma.mUt.'mut]  'comprehend thoroughly'
danum  [da.'num]  'water'
bangus  [ba.'gus]  'milkfish'
putput  [pUt.'put]  'sound of horns (cars)'
ngarud  [ny.'rud]  'therefore'
isu  [qi.'suq]  'he, she, it'
sag-ut  [saq.'qUt]  'cotton yarn'
yubyub  [yUb.'yub]  'sound of conflagration'
For Ilokano [U], the tongue is relaxed from the close position of [u] and is advanced from true back. There is no firm contact made between the tongue and the upper molars. The lips are loosely rounded. The relationship of [U] with [u] is similar to that between [I] and [i]. [U] has the quality of a relaxed, lowered and centralized C[u]. It may be classified as a close, back, semi-tense, rounded vocoid.

The Ilokano [U] occurs in unstressed syllables in all positions.

<table>
<thead>
<tr>
<th>[U] in initial syllable:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>buok</td>
<td>[bU.'qok]</td>
<td>'hair'</td>
<td></td>
</tr>
<tr>
<td>dukot</td>
<td>[dU.'kot]</td>
<td>'anxiety'</td>
<td></td>
</tr>
<tr>
<td>gubal</td>
<td>[gU.'bal]</td>
<td>'coarseness'</td>
<td></td>
</tr>
<tr>
<td>husto</td>
<td>[hUs.'toq]</td>
<td>'right, correct'</td>
<td></td>
</tr>
<tr>
<td>kulot</td>
<td>[kU.'lot]</td>
<td>'curly (hair)'</td>
<td></td>
</tr>
<tr>
<td>luppo</td>
<td>[lUp.'poq]</td>
<td>'thigh'</td>
<td></td>
</tr>
<tr>
<td>mulumog</td>
<td>[mU.'lu.mog]</td>
<td>'gargle'</td>
<td></td>
</tr>
<tr>
<td>nutnot</td>
<td>[nUt.'not]</td>
<td>'thumbsucking'</td>
<td></td>
</tr>
<tr>
<td>ngurungor</td>
<td>[ŋU.'ruŋor]</td>
<td>'cutthroat'</td>
<td></td>
</tr>
<tr>
<td>pungdol</td>
<td>[pUŋ.'tot]</td>
<td>'stump of a tree'</td>
<td></td>
</tr>
<tr>
<td>rurod</td>
<td>[rU.'rod]</td>
<td>'anger, resentment'</td>
<td></td>
</tr>
<tr>
<td>sulisog</td>
<td>[sU.'li.sog]</td>
<td>'temptation'</td>
<td></td>
</tr>
<tr>
<td>tuwato</td>
<td>[tU.'wa.toq]</td>
<td>'dragonfly'</td>
<td></td>
</tr>
<tr>
<td>yubuyob</td>
<td>[yU.'bu.yob]</td>
<td>'sound of the bellows'</td>
<td></td>
</tr>
</tbody>
</table>
### [U] in medial syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>timbukel</td>
<td>[tɪmˌbʊ.ˈkɛl]</td>
<td>'round'</td>
</tr>
<tr>
<td>sidunget</td>
<td>[sɪˈdʊ.ˈɡɛt]</td>
<td>'serious looks'</td>
</tr>
<tr>
<td>gunguna</td>
<td>[ɡʊŋ.ɡʊ.ˈnaq]</td>
<td>'reward, gain'</td>
</tr>
<tr>
<td>likudan</td>
<td>[ˈlɪ.kʊ.ˈdɑn]</td>
<td>'to turn one's back to'</td>
</tr>
<tr>
<td>lulunan</td>
<td>[lʊ.ˈlʊ.ˈnɑn]</td>
<td>'the soft part of a child's cranium'</td>
</tr>
<tr>
<td>tamudo</td>
<td>[tɑ.ˈmo.ˈdoʊ]</td>
<td>'index finger'</td>
</tr>
<tr>
<td>kinuna</td>
<td>[kɪ.ˈnʊ.ˈnaq]</td>
<td>'said'</td>
</tr>
<tr>
<td>bungunen</td>
<td>[bʊŋ.ˈnɛn]</td>
<td>'to wrap up'</td>
</tr>
<tr>
<td>alipugpog</td>
<td>[ɑ.ˈli.ˈpʊɡ.ˈpɑɡ]</td>
<td>'whirlwind'</td>
</tr>
<tr>
<td>sumaruno</td>
<td>[sʊ.ˈma.ˈroʊ.ˈnɑ]</td>
<td>'follow'</td>
</tr>
<tr>
<td>bisukol</td>
<td>[bɪ.ˈsu.ˈkɑl]</td>
<td>'a kind of mollusk'</td>
</tr>
<tr>
<td>batulang</td>
<td>[bɑ.ˈtʊ.ˈlɑŋ]</td>
<td>'a large cage for enclosing chicken'</td>
</tr>
<tr>
<td>bayungubong</td>
<td>[bɑ.ˈyu.ˈnu.ˈbɔŋ]</td>
<td>'diarrhea'</td>
</tr>
</tbody>
</table>

### [U] in final syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>libut</td>
<td>[ˈli.ˈbʊt]</td>
<td>'procession'</td>
</tr>
<tr>
<td>agpidut</td>
<td>[əɡˈpi.ˈdʊt]</td>
<td>'to pick up'</td>
</tr>
<tr>
<td>umigup</td>
<td>[ʊ.ˈmi.ˈɡʊp]</td>
<td>'to sip'</td>
</tr>
<tr>
<td>irakus</td>
<td>[ɪ.ˈra.ˈkuːs]</td>
<td>'to tie to a tree or post'</td>
</tr>
<tr>
<td>alus</td>
<td>[əˈluːs]</td>
<td>'second hand (garment)'</td>
</tr>
<tr>
<td>imut</td>
<td>[ˈi.ˈmʊt]</td>
<td>'avaricious, stingy'</td>
</tr>
<tr>
<td>inut</td>
<td>[ˈi.ˈnʊt]</td>
<td>'a little at a time'</td>
</tr>
<tr>
<td>pingud</td>
<td>[ˈpɪ.ˈnʊd]</td>
<td>'one- eared'</td>
</tr>
</tbody>
</table>
3.2133  [o]

The Ilokano [o] is articulated with the back of the tongue raised between the half-open and half-close positions; with no contact being made between the tongue and the upper molars. It has medium lip rounding. Its quality is that of a raised C[ɔ]. This speech sound may be described as a half-open, back, semi-lax, rounded vocoid.

In Ilokano, the vocoid [o] (1) varies freely with [u] except in loan word forms; (2) normally occurs in stressed final syllables; and, (3) occurs also in unstressed final syllables.

[o] in stressed initial syllable:

- @bola  ['bo.1aq'] 'ball'
- @dose  ['do.seq'] 'twelve'
- @goma  ['go.maq'] 'rubber'
- @kola  ['ko.1aq'] 'paste, glue'
- @lola  ['lo.1aq'] 'grandmother'
- @Moro  ['mo.roq'] 'Moor, Mohammedan'
no ['noq] 'if; in case that'
@orasa ['qo.roqa] 'time; hour'
@poso ['po.soq] 'artesian well'
@rosasa ['ro.soq] 'pink'
@solo ['so.loq] 'alone'
@tano ['to.noq] 'tune'
@yotosa ['vo.toqa] 'votes'
@yoyo ['yo.yoq] 'yoyo'

[o] in stressed medial syllable:
@mabolo [ma.'bo.loq] 'a species of fruit tree'
@adobo [qa.'do.boq] 'pickled pork'
@Alfonso [qa.'lon.soq] 'a boy's name'
@pagoda [pa.'go.doq] 'a Chinese edifice'
@makopa [ma.'ko.paq] 'a kind of fruit'
@Dolores [do.'lo.res] 'a girl's name'
@kamote [ka.'mo.teq] 'sweet potato'
@anonas [qa.'no.nas] 'custard apple'
@laoya [la.'yo.yaq] 'stew'
@kapote [ka.'po.teq] 'raincoat'
@parokia [pa.'ro.kyaq] 'parish'
@Tesoro [te.'so.roq] 'a family name'
@pastores [pas.'to.res] 'shepherd'
@chayote [tya.'yo.teq] 'a kind of vegetable'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>sabot</td>
<td>[sa.'bot]</td>
<td>'coconut shell'</td>
</tr>
<tr>
<td>kubbo</td>
<td>[kUb.'boq]</td>
<td>'humpbacked'</td>
</tr>
<tr>
<td>angdod</td>
<td>[qan.'dod]</td>
<td>'stench, offensive odor'</td>
</tr>
<tr>
<td>sumakdo</td>
<td>[sU.mak.'doq]</td>
<td>'to draw water'</td>
</tr>
<tr>
<td>gulgol</td>
<td>[gUl.'gol]</td>
<td>'shampoo'</td>
</tr>
<tr>
<td>sago</td>
<td>[sa.'goq]</td>
<td>'arrowroot'</td>
</tr>
<tr>
<td>taho</td>
<td>[ta.'hoq]</td>
<td>'ginger ale'</td>
</tr>
<tr>
<td>sukog</td>
<td>[sU.'kog]</td>
<td>'mold, shape'</td>
</tr>
<tr>
<td>littuko</td>
<td>[lit.tU.'koq]</td>
<td>'rattan fruit'</td>
</tr>
<tr>
<td>@kolor</td>
<td>[ko.'lor]</td>
<td>'color'</td>
</tr>
<tr>
<td>tallo</td>
<td>[tal.'loq]</td>
<td>'three'</td>
</tr>
<tr>
<td>isakmol</td>
<td>[qI.sak.'mol]</td>
<td>'to put in the mouth'</td>
</tr>
<tr>
<td>ammo</td>
<td>[qam.'moq]</td>
<td>'knowledge'</td>
</tr>
<tr>
<td>manok</td>
<td>[ma.'nok]</td>
<td>'chicken'</td>
</tr>
<tr>
<td>kasano</td>
<td>[ka.sa.'noq]</td>
<td>'how'</td>
</tr>
<tr>
<td>ngongoy</td>
<td>[yO.'yoI]</td>
<td>'whimpering'</td>
</tr>
<tr>
<td>dungngo</td>
<td>[dUN.'yoq]</td>
<td>'love, affection'</td>
</tr>
<tr>
<td>sab-ong</td>
<td>[sab.'qoq]</td>
<td>'dowry'</td>
</tr>
<tr>
<td>rag-o</td>
<td>[rag.'qoq]</td>
<td>'delight'</td>
</tr>
<tr>
<td>tumapog</td>
<td>[tU.ma.'pog]</td>
<td>'to jump into the water'</td>
</tr>
<tr>
<td>dapo</td>
<td>[da.'poq]</td>
<td>'ashes'</td>
</tr>
<tr>
<td>purok</td>
<td>[pU.'rok]</td>
<td>'group; hamlet'</td>
</tr>
<tr>
<td>diro</td>
<td>[di.'roq]</td>
<td>'honey'</td>
</tr>
<tr>
<td>Word</td>
<td>Pronunciation</td>
<td>Meaning</td>
</tr>
<tr>
<td>-------</td>
<td>---------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>bugsot</td>
<td>[bUg.'sot]</td>
<td>'agony'</td>
</tr>
<tr>
<td>suso</td>
<td>[sU.'soq]</td>
<td>'a kind of fresh water snail'</td>
</tr>
<tr>
<td>libtong</td>
<td>[lib.'toq]</td>
<td>'pond'</td>
</tr>
<tr>
<td>bato</td>
<td>[ba.'toq]</td>
<td>'stone'</td>
</tr>
<tr>
<td>paryok</td>
<td>[par.'yok]</td>
<td>'a large frying pan'</td>
</tr>
<tr>
<td>bagyo</td>
<td>[bag.'yoq]</td>
<td>'storm'</td>
</tr>
</tbody>
</table>

[o] in unstressed final syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tabo</td>
<td>['ta.boq]</td>
<td>'dipper'</td>
</tr>
<tr>
<td>bado</td>
<td>['ba.doq]</td>
<td>'dress'</td>
</tr>
<tr>
<td>Rufo</td>
<td>['ru.foq]</td>
<td>'a boy's name'</td>
</tr>
<tr>
<td>pugo</td>
<td>['pu.goq]</td>
<td>'quail'</td>
</tr>
<tr>
<td>iho</td>
<td>['qi.hoq]</td>
<td>'son'</td>
</tr>
<tr>
<td>lüköt</td>
<td>['lu.kot]</td>
<td>'roll'</td>
</tr>
<tr>
<td>bilog</td>
<td>['bi.log]</td>
<td>'a small boat'</td>
</tr>
<tr>
<td>damo</td>
<td>['da.moq]</td>
<td>'first time'</td>
</tr>
<tr>
<td>banor</td>
<td>['ba.nor]</td>
<td>'dried meat'</td>
</tr>
<tr>
<td>alingo</td>
<td>[qa.'li.noq]</td>
<td>'wild boar'</td>
</tr>
<tr>
<td>@tipo</td>
<td>['ti.poq]</td>
<td>'type'</td>
</tr>
<tr>
<td>@sero</td>
<td>['se.roq]</td>
<td>'zero'</td>
</tr>
<tr>
<td>kusot</td>
<td>['ku.sot]</td>
<td>'sawdust'</td>
</tr>
<tr>
<td>batog</td>
<td>['ba.tog]</td>
<td>'row'</td>
</tr>
<tr>
<td>@relievo</td>
<td>[rel.e.voq]</td>
<td>'relieve'</td>
</tr>
<tr>
<td>kayo</td>
<td>['ka.yoq]</td>
<td>'tree'</td>
</tr>
</tbody>
</table>
3.22 **Vocoid Chains**

A vocoid chain was defined earlier as a syllabic consisting of a continually changing blend of one pure vocoid which is the syllabic center, plus a semivocoid which is the nonsyllabic offglide.

In describing this type of Ilokano speech sound, two sub-types are to be distinguished:

1. **Fronting vocoid chains**, those syllabics which have as their center one of a large choice of vocoids followed by a close-front offglide. Thus, the movement from syllabic to offglide is either forward or upward and forward, as in [aI] in way [waI] 'rattan'; and,

2. **Retracting vocoid chains**, those with close-back offglides, i.e., the movement from syllabic to offglide is either backward or upward and backward, e.g., the [aU] in waw [waU] 'thirst'.

---

To account for specific details at the phonetic level of analysis in this study, the nonsyllabic offglide is to be represented by the vocoid characters, [i, I, u, U]. The semivowels, /w/ and /y/, will be used to represent the offglides at the phonemic level.

Some linguistic analysts indicate the nonsyllabic element by the diacritic, [\~], beneath the vocoid character, e.g., pay [pa\~] 'still'. But since no two individual vocoids can occur in sequence without an intervocalic contoid including the glottal stop, [q], no misinterpretation arises if the nonsyllabic offglide is left unmarked, and the vocoid chain is then read off as a digraph or single phonetic entity, and not as a dissyllabic form, [pa.qIq].
3.221 The Fronting Vowel Chains

The [Ii] chain of Ilokano begins with the tongue and jaw in the positions for [I] and glides in the direction of [i], there being a very slight closing movement of the lower jaw. This speech sound occurs very rarely and only initially as the first syllable of a reduplication, thus:

iy-iyegko ['qIi.qI.'yeg.koq] 'I'm bringing it'

It will be noted that the resonance glide is induced by the semicontoid [y] of the root morpheme, [yeg] 'bring.'
3.2212 \([\text{ei}]\)

The Ilokano \([\text{ei}]\) results from a rapid movement upward from the half-open tongue humping for \([\text{e}]\) toward the front vocoid \([\text{i}]\), although the tongue probably never reaches a point quite as high as it does for \([\text{i}]\).

This vocoid chain has a low frequency of occurrence. Immigrants from Ilocos Norte substitute \([\text{ei}]\) for \([\text{aI}]\), thus:

\[
\begin{align*}
\text{dayta} & \quad \text{deyta} & \quad [\text{dəi.təq}] & \quad \text{'that'} \\
\text{daytoy} & \quad \text{deytoy} & \quad [\text{dəi.toI}] & \quad \text{'this'} \\
\text{maysa} & \quad \text{meysa} & \quad [\text{məi.səq}] & \quad \text{'one'}
\end{align*}
\]

In addition to the above phonetic contexts, \([\text{ei}]\) occurs only in the following word forms:

\[
\begin{align*}
\text{Leyte} & \quad [\text{leɪ.teɾ}] & \quad \text{'name of a province'} \\
\text{@Reynaldo} & \quad [\text{reɪ.nəl.doɾ}] & \quad \text{'a boy's name'} \\
\text{@reyna} & \quad [\text{reɪ.nəɾ}] & \quad \text{'queen'} \\
\text{tapey} & \quad [\text{təp'eɾ}] & \quad \text{'rice wine'} \\
\text{@Bassey} & \quad [\text{bəs'seɾ}] & \quad \text{'name of a town'} \\
\text{@Christo Rey} & \quad [\text{kɾɪs.to.'ɾeɾ}] & \quad \text{'Christ the King'}
\end{align*}
\]

3.2213 \([\text{aI}]\)

The resonance shift of \([\text{aI}]\) proceeds from the Ilokano open-front \([\text{a}]\) to the vocoid quality of \([\text{I}]\). The glide is much more extensive than that of \([\text{ei}]\). The lips change from a neutral to a loosely spread position.

This vocoid chain generally occurs in stressed final syllables.
[aI] in stressed final syllable:

- nam-ay [nam.'qal] 'ease, comfort'
- labay [la.'bal] 'a mixture of broth and cooked rice'
- biday [bl.'dal] 'a variety of mint plant'
- lakay [la.'kal] 'old man'
- balay [ba.'lal] 'house'
- umay [qU.'mal] 'come'
- Isinay [qI.'sl.nal] 'a native language'
- langay [la.'nal] 'romp and frolic'
- paypay [pa.'pal] 'fan'
- turay [tU.'ral] 'rule, authority'
- kissay [kls.'sal] 'decrease'
- patay [pa.'tal] 'death'
- naruay [nar.'rwal] 'abundant'

3.2214 [aI]

For Ilokano [aI], the tongue glide begins at a central position just below half-open level and moves in the direction of [I]. For the initial resonance, the lips are shaped similar to that described for [a], but have a tendency to spread for the second.

The distributional relationship of [aI] with [aI] is similar to that between [a] and [a], i.e., [aI] occurs in stressed syllables, and [aI], elsewhere.
### [qI] in initial position:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ay-ayam</td>
<td>[qaI.'qa.yam]</td>
<td>'play, game'</td>
</tr>
<tr>
<td>bay-am</td>
<td>[baI.'qam]</td>
<td>'leave it alone'</td>
</tr>
<tr>
<td>dayta</td>
<td>[dqI.'taq]</td>
<td>'that'</td>
</tr>
<tr>
<td>gayyem</td>
<td>[gaI.'yem]</td>
<td>'friend'</td>
</tr>
<tr>
<td>kaybaan</td>
<td>[kaI.'ba.'qan]</td>
<td>'fairy of the mound'</td>
</tr>
<tr>
<td>lay-asan</td>
<td>[laI.'qa.san]</td>
<td>'to reduce horse feed'</td>
</tr>
<tr>
<td>maysa</td>
<td>[maI.'saq]</td>
<td>'one'</td>
</tr>
<tr>
<td>ngay</td>
<td>[qI]</td>
<td>'an interrogative adverb'</td>
</tr>
<tr>
<td>naynay</td>
<td>[naI.'naI]</td>
<td>'frequently'</td>
</tr>
<tr>
<td>pay-us</td>
<td>[paI.'qus]</td>
<td>'a variety of rice'</td>
</tr>
<tr>
<td>ray-aben</td>
<td>[raI.'qa.ben]</td>
<td>'to tear garment by pulling'</td>
</tr>
<tr>
<td>say-open</td>
<td>[saI.'qu.pen]</td>
<td>'to smell'</td>
</tr>
<tr>
<td>tay-ak</td>
<td>[taI.'qak]</td>
<td>'meadow'</td>
</tr>
<tr>
<td>way</td>
<td>[waI]</td>
<td>'rattan'</td>
</tr>
</tbody>
</table>

### [qI] in medial syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nakaay-ay-ay</td>
<td>[na.qa.qI.qaI.'qaI]</td>
<td>'woeful'</td>
</tr>
<tr>
<td>balaybay</td>
<td>[ba.I.qI.'bai]</td>
<td>'laundry on the clothesline'</td>
</tr>
<tr>
<td>agpayso</td>
<td>[qaq.pqI.'soq]</td>
<td>'true'</td>
</tr>
<tr>
<td>narayray</td>
<td>[naI.raI.'raI]</td>
<td>'bright, burning'</td>
</tr>
</tbody>
</table>

### [qI] in final syllable:

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>abay</td>
<td>['qa.bqI]</td>
<td>'beside'</td>
</tr>
<tr>
<td>kiday</td>
<td>['ki.dqI]</td>
<td>'eyebrows'</td>
</tr>
<tr>
<td>pagay</td>
<td>['pa.gqI]</td>
<td>'rice (unthreshed)'</td>
</tr>
<tr>
<td>Mabuhay</td>
<td>[ma.'bu.fqI]</td>
<td>'Long live!'</td>
</tr>
</tbody>
</table>
yakay  ['ya.kal]  'to drive into a herd'
pilay  ['pi.lal]  'lame'
ramay  ['ra.mal]  'finger'
anay  ['qa.nal]  'termite'
bingay  ['bi.yal]  'share'
apay  ['qa.pal]  'why'
aray  ['qa.ral]  'row, line'
wasay  ['wa.sal]  'axe'
patay  ['pa.tal]  'stand, support'
away  ['qa.wal]  'outskirts'

3.2215  [eI]

The glide of [eI] begins from the C[e] position and moves in the direction of the position associated with Ilokano [I].

The fronting vocoid chain, [eI], occurs only in the morpheme tapey ['ta.peI] 'rice wine.' It is pronounced [ei] by some Ilokano speakers, hence, [ta.pei].

3.2216  [oi]

The Ilokano [oi] features a resonance glide from the half-open back [o] to the front-vocoid position for [I]. The lips are open rounded for the first resonance, changing to neutral for the second. Just as its pure vocoid counterpart, [o], is pronounced as [u], so is [oi] realized as [UI], by a few conservative native speakers.
[oɪ] has a more restricted phonetic context than the pure-vocoid [o], i.e., it does not normally occur initially and medially. In reduplications, the u-o sequential pattern operates, e.g., aguy-oys [qɑ.goI.'qoI] 'to dangle.' For some speakers, however, the initial element of the first chain is phonetically realized as [o], hence, [qɑ.goI.'qoI]. This variation is quite acceptable.

[oɪ] in stressed final syllable:

naraboy [na.ɾa.'boI] 'frail (body)'
aglusdoy [qa.ɣUS.'doI] 'to droop'
tangkoy [tɑŋ.'koI] 'a gourd-like vegetable'
agsalloy [qɑ.sal.'loI] 'to exhaust energy'
agonnoy [qa.gon.'noI] 'to moan'
langoy [la.'goI] 'swim'
pul-oy [pUl.'qoI] 'breeze'
agsuysoy [qɑ.sUI.'soI] 'to ravel or fray'
kastoy [ka.s.'toI] 'like this'

[oɪ] in unstressed final syllable:

baboy ['ba.boI] 'pig'
dalayudoy [dɑ.la.'yu.doI] 'pulp'
guyugoy [gU.'yu.goI] 'enticement'
sarakoy [sa.'ra.koI] 'to buy in gross without choosing'
tuloy ['tu.loI] 'continuation'
uyaoy  [qU.'ya.qoI]  'to dangle'
agsalayusoy  [qags.qla.'yu.soI]  'said of wind or water passing through permeable materials'

3.2217  [UI]
The Ilokano vocoid chain, [UI], glides from a tongue position similar to that used for [U], towards the front position for [I] exactly opposite it. The lips remain slightly rounded during the articulation of both elements of the chain. The [I] in this chain is, therefore, somewhat abnormal, i.e., it is produced with the tongue and lips both fronted.

[UI] participates as the first chain in a reduplication, thus:

buyboy  [bUI.'boI]  'a kind of grass'
nakuykoy  [nU.kU.'koI]  'scraped together'
naluyloy  [nU.lU.'loI]  'oily'
panuynuyan  [pU.nU.'nu.yan]  'to condescend to'
aguy-oy  [qU.gU.'qoI]  'to dangle'
puypooy  [pU.'poI]  'caudal fin of a fish'
agruyroy  [qags.rU.'roI]  'to wear out'
agsuysoy  [qags.sU.'soI]  'to ravel or fray'
tuytoy  [tU.'toI]  'a kind of cruet for holding winde, oil, etc.'
3.2218 [ui]

The abnormal tongue-lip correlation in the offglide resonance for the Ilokano chain, [ui], is similar to that described for [UI]. Of course, in [ui], there is relative tenseness; the tongue is closer to the palate; and the lips are rounded during the onglide and the offglide resonances. A stronger stress is concentrated on the onglide.

An insignificant number of native speakers replace [oI] or [UI] by [ui], although this is limited to such word forms as:

- nakapuy [na.ˈka.pui] 'weak'
- iruy [ˈqi.rui] 'a variety of rice'
- kasuy [ka.ˈsui] 'cashew'

3.222 The Retracting Vowel Chains
3.2221 [iu]

The Ilokano [iu] is symmetrically opposed to [ui]. The stress and length associated with the glide is concentrated on the initiating element, [i]. The tongue and lip positions for the onglide are, therefore, those for [i], but the lips move to the position for [u], with in-rounding rather than puckered.

[iu] normally occurs in final stressed syllables, usually as the second component of a reduplication, thus:

- kíwkiw [kIU.'kIU] 'tail of a fish'
- liwliw [lIU.'liu] 'fishing tackle'
- ngiwngiw [ŋIU.'ŋIU] 'upper lip'
- riwriw [rIU.'riu] 'thousands'
- siwsiw [sIU.'siu] 'sauce'

Other contexts which are not reduplications are the following:

- tiliw [tI.'liu] 'to catch'
- kissiw [kIS.'siu] 'epilepsy'
- tiwatiw [tI.wã.'tiu] 'pendulum'

3.2222 [IU]

A shift to a lower vocoid-chain quality from the symmetrically opposed [ui] and [iu] produces the corresponding opposites [UI] and [IU].

For the onglide of the Ilokano vocoid chain, [IU], the tongue and lip positions are those for [I]. The tongue
position held constant, the lips move to the position for [U]. The stress of articulation falls on [I] which is slightly lengthened.

[IU] occurs in unstressed syllables, usually but not always the first component of a reduplication.

[IU] in initial syllable (see also Sec. 3.2221):

- giwgiwangan [gIU.gI.'wa.qan] 'making a gap'
- iw-iwa [qIU.'qi.waq] 'slices'
- kiwkiwaren [kIU.kI.'wa.ren] 'stirring to mix'
- liwliwa [lIU.lI.'waq] 'consolation'
- niwniwen [nIU.'ni.wen] 'to squander'
- ngiwngiwat [ŋIU.'qi.wat] 'mouths'
- piwpiwiren [pIU.pi.'wi.ren] 'distorting the lips'
- siwsiwan [sIU.'si.won] 'sauce'

[IU] in final syllable:

- peliiw [pə.'li.qIU] 'observation'
- iliw ['qi.liU] 'homesickness'
- daniw ['da.nIU] 'lyric poem'
- maatiw [ma.'qa.tIU] 'to be defeated'

3.2223 [aU]

Articulation of this retracting vocoid chain proceeds from the relatively more stable resonance of [a] and glides off toward the closed position for [U]. Just as in the case of all the other vocoid chains, the first element has considerable latitude of articulation.
[aU] occurs only in stressed syllables, thus:

- pan-aw ['pan.'qau] 'cogon grass'
- narabaw ['naq.'baU] 'shallow'
- aldaw ['qal.'daU] 'day'
- kalgaw ['kal.'gaU] 'dry season'
- pukkaw ['puk.'kaU] 'shout'
- ullaw ['qu.'laU] 'kite'
- agsikmaw ['qag.slk.'maU] 'to take a bait (fish)'
- nanawnaw ['naq.'naU] 'dissolved'
- ngangaw ['naq.'naU] 'palate'
- kalapaw ['kal.'paU] 'hovel'
- puraw ['pu.'raU] 'white'
- pisaw ['pi.'saU] 'splash'
- aglataw ['qag.la.'taU] 'to float'
- agsawaw ['qag.sa.'waU] 'to vent'
- uyaw ['qu.'yaU] 'criticism, scoff'

```
3.2224  [aU]
```

The resonance shift of Ilokano [aU] begins at a central position and moves in the position for [U]. For the initiating resonance the lips and tongue are neutral, but the lips are slightly rounded for the offglide [U].

This lax vocoid chain occurs in unstressed syllables.

[aU] in initial syllable:

- aw-awagan ['qau.qa.'wa.gon] 'is calling'
- baw-ing ['bqU.'qiŋ] 'swerve'
- daw-as ['dqU.'qas] 'a brief stopover'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>gawgaw</td>
<td>gaU.'gaU</td>
<td>'starch'</td>
</tr>
<tr>
<td>kawkaw</td>
<td>kaU.'kaU</td>
<td>'dip finger in water'</td>
</tr>
<tr>
<td>lawlaw</td>
<td>laU.'laU</td>
<td>'surroundings'</td>
</tr>
<tr>
<td>nawnawen</td>
<td>naU.'na.wen</td>
<td>'to dissolve'</td>
</tr>
<tr>
<td>paw-it</td>
<td>pqU.'qit</td>
<td>'parcel'</td>
</tr>
<tr>
<td>raw-akan</td>
<td>raU.'qa.kan</td>
<td>'to pulverize'</td>
</tr>
<tr>
<td>sawsawan</td>
<td>saU.'sa.won</td>
<td>'sauce'</td>
</tr>
<tr>
<td>tawwatawwa</td>
<td>taU.wa.'taU.wa.q</td>
<td>'castor oil plant'</td>
</tr>
</tbody>
</table>

[qU] in final syllable?

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>igaaw</td>
<td>qaU.'qa.qU</td>
<td>'fair weather'</td>
</tr>
<tr>
<td>kabaw</td>
<td>ka.bqU</td>
<td>'forgetful'</td>
</tr>
<tr>
<td>pudaw</td>
<td>pu.dqU</td>
<td>'light complexion'</td>
</tr>
<tr>
<td>naagaw</td>
<td>qa.'qa.gqU</td>
<td>'snatched'</td>
</tr>
<tr>
<td>pukaw</td>
<td>pu.kqU</td>
<td>'loss'</td>
</tr>
<tr>
<td>ulaw</td>
<td>qu.lqU</td>
<td>'dizziness'</td>
</tr>
<tr>
<td>kumaw</td>
<td>ku.mqU</td>
<td>'deadly dragon'</td>
</tr>
<tr>
<td>panaw</td>
<td>pa.nqU</td>
<td>'departure'</td>
</tr>
<tr>
<td>bangaw</td>
<td>ba.qqU</td>
<td>'large housefly'</td>
</tr>
<tr>
<td>sapaw</td>
<td>sa.pqU</td>
<td>'shade, shelter'</td>
</tr>
<tr>
<td>araraw</td>
<td>ra.raqU</td>
<td>'lamentation'</td>
</tr>
<tr>
<td>basisaw</td>
<td>si.sqU</td>
<td>'bladder'</td>
</tr>
<tr>
<td>bulalayaw</td>
<td>bu.la.'la.yqU</td>
<td>'rainbow'</td>
</tr>
</tbody>
</table>
3.23 **Contoids**

Contoids, as discussed earlier, are articulated with varying degrees of obstruction of the breath stream — ranging from a complete stop to a slight narrowing which produces audible friction — at one or more points in the speech tract as it passes outward from the lungs. In this section, the Ilokano contoids are analyzed in some detail according to the place at which the obstruction is made and how it is made. This includes voicing or lack of it.

The sequence of presentation is as follows:

**Stops**

Plosives: p b t d k g q

**Continuants**

Nasals: m n ʔ

Lateral: l

Flap: r

Fricatives: f v s h ʃ

Semivocoids: w y

3.231 **Plosives**

A complete plosive articulation consists of three stages: the onset or implosion stage, during which the speech organs involved move close together to obstruct the outgoing lung air; the hold or compression stage, during which the air is compressed behind the closure; and, the release or explosion, during which the organs
forming the obstruction part rapidly allowing the compressed air to escape abruptly.

It will be noted that Ilokano plosives are never aspirated unlike those of English which are generally aspirated in initial position at least in strongly stressed syllables. Furthermore, all the plosives are articulated with the soft palate raised and the nasal resonator shut off. Other general features of the Ilokano plosives are the following:

(a) There is no audible release preceding other plosives, e. g., padto [p₇td.'toq] 'prophesy'; ubbing [qUb.'big]'children.'

(b) When followed by a homorganic nasal contoid,
a plosive release is nasal, e. g.; pudno [p₇dn.'noq] 'true'; irikep mo [qI.rl.'kep.moq] 'close it.'

(c) In the sequence of a homorganic dental [t] or [d] plus [l], the release of air is lateral, i. e., one or both sides of the tongue are lowered to allow the air to escape. Such lateral release occurs, for instance, in maikatlo [maI.kat.tloq] 'third', and padles [p₇dl.'dles] 'prediction.'

(d) Bilabial, dental and velar plosives are often palatalized when followed by the semi-contoid, [y], e. g., pyek [p'yek] 'chick', tyan [t'yan] 'tummy'; kyosko [k'yos.'koq] 'kiosk'; biag [b'yag] 'life'; daydiay [d₇dl.'d'yal] 'that'; bagyo [b'gyoq] 'storm.'

39 A. C. Gimson, op. cit., p. 145.
(e) Postvocalic Ilokano plosives tend to be gemininated when followed by the alveolar sounds, [r, l], in a stressed syllable, as shown in the following examples:

- suplad [s\textsuperscript{U}p.'lad] 'wooden shovel'
- sublat [s\textsuperscript{U}b.'blat] 'exchange'
- apro [q\textsuperscript{A}p.'proq] 'bile'
- sobra [sob.'braq] 'extra'
- itlog [qIt.'tlog] 'egg'
- padles [pad.'dles] 'prediction'
- katre [kat.'treq] 'bed'
- Pedro [ped.'droq] 'Peter'
- saklot [sak.'klot] 'laps'
- siglot [sIg.'glot] 'knot'
- takrot [tak.'krot] 'coward'
- sagrapen [sag.'gra.pen] 'negative recompense'

3.2311 Bilabial Plosives [p, b]

Complete obstruction of the egressive air stream is made by the closure of the lips simultaneously with the raising of the velum shutting off the nasal resonator. While the air is thus being compressed behind the bilabial closure, the vocal bands are held wide apart for [p], but are made to vibrate during the compression stage for [b] giving it its voiced quality. Labialization is a special feature in the articulation of [p] and [b], i. e., the lip position is conditioned by that of the adjacent vocoid: thus,
there is anticipatory lip spreading for [p] and rounding for [b] in *pabo* ['pa.boq] 'turkey.'

[p] and [b] in initial position:

- **pilid** ['pi.lid] 'wheel'
- **pekkel** [pek.'kel] 'knead'
- **pala** ['pa.laq] 'shovel'
- **polo** ['po.loq] 'polo shirt'
- **pulo** ['pu.loq] 'ten'

[bilid] ['bi.lid] 'border or rim'

- **bekkel** [pek.'kel] 'strangle'
- **bala** ['ba.laq] 'bullet'
- **bola** ['bo.loq] 'ball'
- **bulo** ['bu.loq] 'a variety of bamboo'

[p] and [b] in medial position:

- **sipnget** [sIp.'net] 'darkness'
- **reppet** [rep.'pet] 'bundle'
- **tapnino** [tap.'noq] 'so that'
- **kopa** ['ko.paq] 'tumbler, *goblet'*
- **tuppra** [tUp.'praq] 'sputum'

- **agibtur** [qa.qIb.'tur] 'to endure'
- **rebbeng** [reb.'ben] 'responsibility'
- **rabnisen** [rab.'ni.sen] 'to snatch'
- **lobo** ['lo.boq] 'balloon'
- **tubngar** [tUb.'nar] 'contradiction'
[p] and [b] in final position:

- sirip: ['si.rIp] 'peep, peek'
- ulep: ['qu.lep] 'cloud'
- naatap: [na.'qa.tap] 'untamed'
- narukop: [na.rU.'kop] 'easily torn'
- takup: [ta.'kop] 'patchwork'
- sirib: ['si.rIb] 'wisdom'
- agdaleb: [qag.da.'leb] 'to fall prone'
- isarab: [qI.'sa.rab] 'to sear'
- unngngob: [qUŋ.'ŋob] 'noseless'
- kalub: [ka.'lub] 'lid'

3.2312 Dental Plosives  [t, d]

For the articulation of [t] and [d], the main obstruction to the breath stream is formed by a complete closure made between the tip and rim of the tongue and the front and side teeth. During the hold or compression stage, the vocal bands are open for [t], but are made to vibrate producing the voicing for [d].

Just like the case for [p] and [b], the lip position is conditioned by that of the adjacent sounds, e.g., spread lips for [t] in iti [qI.'tiq] 'the'; anticipatory lip rounding for [t] in to [toq] 'later'; and twalya ['twal.'lyaq] 'towel.'
A sudden separation of the lingua-dental closure allows the air stream to escape with force, unless it has been blocked by a second closure and channeled elsewhere in anticipation of the contoid following it - i. e., behind the alveolar ridge as for [k] in kudkod [kǔd.'kod] 'scratch'; forward of the alveolar ridge as for [p] in kepkep [kęp.' kep] 'hug'; or diverted through the nose by the lowering of the soft palate as for [ŋ] in ngetnget [ŋe.t.'jet] 'gnaw'.

The dental plosives occur in all positions.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>timek</td>
<td>['ti.mek]</td>
<td>'voice'</td>
</tr>
<tr>
<td>tengnga</td>
<td>[teŋ.'ŋaq]</td>
<td>'middle'</td>
</tr>
<tr>
<td>tallo</td>
<td>[təl.'loq]</td>
<td>'three'</td>
</tr>
<tr>
<td>tolda</td>
<td>[tol.'daq]</td>
<td>'canvass shed'</td>
</tr>
<tr>
<td>tuldek</td>
<td>[tʊl.'dek]</td>
<td>'period'</td>
</tr>
<tr>
<td>dila</td>
<td>['di.loq]</td>
<td>'tongue'</td>
</tr>
<tr>
<td>deppe</td>
<td>[dep.'paq]</td>
<td>'fathom'</td>
</tr>
<tr>
<td>dalan</td>
<td>['da.lan]</td>
<td>'path, way'</td>
</tr>
<tr>
<td>Domingo</td>
<td>[do.'miŋ.goq]</td>
<td>'Sunday'</td>
</tr>
<tr>
<td>dulang</td>
<td>['du.lan]</td>
<td>'low table'</td>
</tr>
</tbody>
</table>
[t] and [d] in medial position:

- bitla  [bit.'laq]  'speech'
- ketdi  [ket.'diq]  'rather'
- patneng  [pat.'neg]  'native, denizen by birth'
- votos  ['vo.tos]  'votes'
- puto  ['pu.toq]  'rice pudding'
- biddut  [bId.'dut]  'mistake'
- beddal  [bed.'dal]  'rude person'
- padto  [pad.'toq]  'prophesy'
- boda  ['bo.daq]  'wedding'
- pudno  [pUd.'noq]  'true'

[t] and [d] in final position:

- 1kit  ['qi.kIt]  'aunt'
- baket  [ba.'ket]  'old woman'
- igat  ['qi.gat]  'eel'
- karot  [ka.'rot]  'a wild edible yam'
- libut  ['li.bUt]  'procession'
- igid  ['qi.gId]  'edge, border'
- baked  [ba.'ked]  'brawn'
- lgad  ['qi.gad]  'grater'
- rukod  [rU.'kod]  'measurement'
- ngarud  [ŋa.'rud]  'therefore'
3.2313 Velar Plosives \([k, g]\)

A complete obstruction to the breath stream is formed by a closure made between the back of the tongue and the soft palate or velum. The lung air is compressed behind the velar closure, during which the vocal bands are wide open for \([k]\), but are set in vibration producing the voicing for \([g]\). Labialization for \([k]\) and \([g]\) is conditioned by that of adjacent sounds, i.e., there is anticipatory lip rounding for the plosives before back vocoids and the semi-contoid \([w]\), e.g., \(\text{kukwa} \ ['\text{ku.kwaq}'] \ 'one's belongings'; and anticipatory lip spreading for the plosives before front vocoids, e.g., \(\text{gigir} \ ['\text{gi.gIr}'] \ 'apprehension'.

Advancement or retraction of the lingua-velar closure is induced by the adjacent vocoids. Thus, before or after front vocoids, the \([k, g]\) closures are near palatal, whereas in the context of back vocoids, especially \([u]\), the contact is correspondingly retracted. The compressed lung air is released with force upon the sudden separation of the lingua-velar closure, otherwise the release is nasal, palatal or lateral.

Ilokano velar plosives occur in all positions:

\([k]\) and \([g]\) in initial position:

- \(\text{kita} \ ['\text{ki.tqa}'] \ 'look'
- \(\text{kebba} \ ['\text{keb.'baq}'] \ 'convulsive respiration'
- \(\text{karit} \ ['\text{ka.rIt}'] \ 'impudence'
- \(\text{koreo} \ ['\text{ko.re.'yoq}'] \ 'mail'
- \(\text{kura} \ ['\text{ku.rqa}'] \ 'clergy'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>gita</em></td>
<td>['gi.toq]</td>
<td>'venom'</td>
</tr>
<tr>
<td><em>gebba</em></td>
<td>['geb.'baq]</td>
<td>'to burn clay'</td>
</tr>
<tr>
<td><em>garit</em></td>
<td>['ga.rIt]</td>
<td>'stripe'</td>
</tr>
<tr>
<td><em>Gorio</em></td>
<td>['gor.ryoq]</td>
<td>'a boy's nickname'</td>
</tr>
<tr>
<td><em>gura</em></td>
<td>['gu.roq]</td>
<td>'hatred'</td>
</tr>
</tbody>
</table>

**[k] and [g] in medial position:**

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ikit</em></td>
<td>['qi.kIt]</td>
<td>'aunt'</td>
</tr>
<tr>
<td><em>sekka</em></td>
<td>['sek.'kaq]</td>
<td>'clay'</td>
</tr>
<tr>
<td><em>sako</em></td>
<td>['sa.koq]</td>
<td>'sack'</td>
</tr>
<tr>
<td><em>tokwa</em></td>
<td>['to.kwaq]</td>
<td>'bean cake'</td>
</tr>
<tr>
<td><em>rukit</em></td>
<td>[rU.'kit]</td>
<td>'till the soil'</td>
</tr>
<tr>
<td><em>igid</em></td>
<td>['qi.gId]</td>
<td>'edge'</td>
</tr>
<tr>
<td><em>segga</em></td>
<td>['seg.'gaq]</td>
<td>'anxiety'</td>
</tr>
<tr>
<td><em>sago</em></td>
<td>['sa.'goq]</td>
<td>'arrowroot'</td>
</tr>
<tr>
<td><em>toga</em></td>
<td>['to.goq]</td>
<td>'gown, toga'</td>
</tr>
<tr>
<td><em>rugit</em></td>
<td>[rU.'git]</td>
<td>'dirt'</td>
</tr>
</tbody>
</table>

**[k] and [g] in final position:**

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>irik</em></td>
<td>[qI.'rik]</td>
<td>'unhusked rice'</td>
</tr>
<tr>
<td><em>pusek</em></td>
<td>[pU.'sek]</td>
<td>'compactness'</td>
</tr>
<tr>
<td><em>siak</em></td>
<td>[syak]</td>
<td>'I'</td>
</tr>
<tr>
<td><em>batok</em></td>
<td>['ba.tok]</td>
<td>'dive'</td>
</tr>
<tr>
<td><em>Taruc</em></td>
<td>['ta.rUk]</td>
<td>'a family name'</td>
</tr>
</tbody>
</table>
3.23 Glottal Plosive \([q]\)

In the articulation of the plosive, \([q]\), the breath stream is completely obstructed by the closure of the vocal bands. The hold or compression stage of its articulation consists of silence, which is perceived auditorily by the sudden stop of the preceding sound or by the sudden onset of the following sound.

\([q]\) functions as a syllable onset when the initial orthographic symbol of the syllable represents a vocoid, e. g., \(\text{aldaw} \ [q\text{d}',\text{daU}] \ 'day'; \text{rang-ay} \ [r\text{g}',\text{qal}] \ 'progress'; and as a syllable coda when the final orthographic symbol represents a vocoid, e. g., \(\text{bado} \ [\text{ba}.\text{doq}] \ 'dress'.

Thus, in conventional orthography, \([q]\) is not represented, although linguistically, it functions as either of the contoids in the CVC syllable pattern, e. g., \(\text{adda} \ [q\text{d}.\text{daq}] \ 'there is' (see also Sec. 2.3).

A significant number of Ilokano speakers substitute \([q]\) for \([p, t, k]\) in syllable final, utterance medial position. Examples:

- \(\text{sipngel} \ [\text{sIp}'.\text{net}] \ > \ [\text{sIq}'.\text{net}] \ 'darkness'
- \(\text{lulot} \ [l\text{Ut}'.\text{lot}] \ > \ [l\text{Uq}'.\text{lot}] \ 'mire'
- \(\text{bukbok} \ [\text{bUk}'.\text{bok}] \ > \ [\text{bUq}'.\text{bok}] \ 'wood borer'
A few immigrants from Ilocos Norte substitute [q] for [p, t, k] in utterance final position. For example:

- **taep** [tə.qep] > [tə.'qeq] 'chaff'
- **met** [met] > [meq] 'also'
- **badok** ['ba.dok] > ['ba.doq] 'my dress'

[q] in initial position:

- **ilot** ['qi.lot] 'massage'
- **ellek** [qel.'lek] 'mute with crying'
- **awan** [qa.'wan] 'nothing'
- **oras** ['qo.ras] 'time, hour'
- **urat** [qU.'rat] 'nerve'

[q] in medial position:

- **pait** [pa.'qit] 'bitterness'
- **raem** [ra.'qem] 'respect'
- **saan** [sa.'qan] 'no'
- **buot** ['bu.qot] 'mold, mildew'
- **sag-ut** [sag.'qut] 'yarn'

[q] in final position:

- **bagi** [ba.'giq] 'body'
- **bote** ['bo.teq] 'bottle'
- **sika** [sI.'kaq] 'you'
- **siko** ['si.koq] 'elbow'
- **adu** [qa.'duq] 'many'
3.232 Nasals [m, n, \(\eta\)]

Ilokano nasalcontoids are articulated in a manner similar to the plosives, except for two features: (1) for the nasals, the velum is lowered allowing the lung air to escape through the nose; and (2) the nasals are always voiced, so there is no voice-breath opposition.

Unlike those of English, Ilokano nasal contoids are always nonsyllabic.

3.2321 Bilabial Nasal [m]

The speech sound [m] results from a complete bilabial closure as for [p, b] and a lowering of the velum which gives the outgoing breath stream a predominantly nasal resonance.

[m] in initial position:

- misa [\'mi.saq\] "mass (church)"
- met [met] 'also'
- mata [ma.taqa] 'eye'
- mo [moq] 'your'
- mula [\'mu.laq\] 'plant'

[m] in medial position:

- rimas [\'ri.mas\] 'breadfruit'
- kemmeg [kem.meg] 'pounce'
- reman [ra.man] 'taste'
- lomo [\'lo.moq\] 'loin'
- lumut [\'lu.mUt\] 'moss'
3.2322 Dental Nasal  [n]

The Ilokano [n] is realized with a lingua-dental obstruction as for [t, d] and a lowered velum. The lip position is conditioned by that of the adjacent vocoids, e. g., the lips are slightly rounded in no [noq] 'if'; neutral in na [naq] 'his, her, its'; and spread in ni [niq] 'prenominal article (used with proper names).’ In Ilokano, this contoid is normally given a dental rather than an alveolar articulation.

[n] frequently assimilates to the following bilabial or velar contoid, thus:

penpen  [pen.'pen]  >  [pem.'pen]  'stacks'
banban  [ban.'ban]  >  [bem.'ban]  'bamboo strips'
saanman  [sa.qan.'man]  >  [sa.qam.'man]  'why not'
kenka  [ken.'kaq]  >  [ken.'kaq]  'to you'
gingined  [gIn.gI.'ned]  >  [gIn.gI.'ned]  'earthquake'
Sensorial Concepts 

[n] in initial position:

nipa [ʼni.p̥a] 'a species of swamp palm'
nepnep [nep.ʼnep] 'rainy days'
nakem [ʼna.kem] 'idea'
Norma [ʼnor.ta] 'a girl's name'
nupay [ʼnu.p̥a] 'although'

[n] in medial position:

aninivan [qa.nl.ʼni.w̄n] 'shadow'
bennek [ben.ʼnek] 'a species of edible clam'
annad [qa.n.ʼnad] 'caution'
cono [ʼko.noq] 'rice mill'
buntog [bUn.ʼt̄og] 'sluggish'

[n] in final position:

kupin [ku.ʼpin] 'fold'
baen [ba.ʼqen] 'sneeze'
uban [ʼqu.बन] 'white hair'
duron [dU.ʼron] 'push'
arun [qa.ʼrun] 'kindling material'

3.2323 Velar Nasal [ŋ]

For the nasal contoid [ŋ], a complete oral closure is formed between the back of the tongue and the soft palate resembling that for the plosives [k, g]. With the tongue and velum in this position, the voiced breath stream is
emitted through the nasal cavity. Lip position is determined by that of the preceding or following vocoid, i.e., spread and withdrawn lips, as in ngiwat ['ni.wat] 'mouth'; slightly spread, as in tenggel [teŋ.'gel] 'hold'; rounded in unengo [qUŋ.'ŋoŋ] 'kiss.'

In Ilokano, the nasal contoid, [ŋ], occurs pre- and post-vocalic in all positions.

[ŋ] in initial position:

ngipen ['ŋi.pen] 'tooth'
ngem ['ŋem] 'but'
ngata [ŋa.'taq] 'perhaps'
ngoak ['ŋo.qok] 'cry of the water buffalo'
ngudel [ŋU.'del] 'dullness (knife)'

[ŋ] in medial position:

singin ['si.ŋIn] 'twin'
dengngep [den.'ŋep] 'hot compress'
dangaw ['da.ŋU] 'stinkbug'
angungot [qag.ŋUt.'ŋot] 'to gnaw'
dungngo [dUŋ.'ŋoŋ] 'affection'

[ŋ] in final position:

gusing [gU.'siŋ] 'harelip'
sileng [si.'len] 'glitter'
nanang ['na.naŋ] 'mother'
alsong [qal.'sonŋ] 'mortar'
gutung [gU.'tUŋ] 'hidden rocks'
The Ilokano [l], an alveolar lateral, is articulated with a complete velo-pharyngeal closure shutting off the nasal resonator, and with a partial closure between the tongue margins or rim and the upper teeth. With the tongue in this position, the voiced breath stream is released, escaping laterally on both sides of the lingua-alveolar contact.

[l] is slightly devoiced after the voiceless bilabial, alveolar, and velar plosives, for example:

\[
\begin{align*}
\text{plaka} & \quad ['plä.ka] \quad 'turntable' \\
\text{itlog} & \quad ['qít.ˈtlo] \quad 'egg' \\
\text{aklo} & \quad ['qok.ˈklo] \quad 'ladder'
\end{align*}
\]

The actual point of contact of the tongue for [l] is anticipated by the point of articulation of the following contour. Thus, [l] is dentalized in paltat [palt] 'catfish'; palatalized in kalye [käl.ˈlye] 'street'; velarized in talged [taˈged] 'reliance.'

[l] in initial position:

\[
\begin{align*}
\text{lima} & \quad ['lì.ˈma] \quad 'five' \\
\text{letteg} & \quad ['let.ˈteg] \quad 'boil, furuncle' \\
\text{lasag} & \quad ['la.ˈsag] \quad 'flesh'
\end{align*}
\]

33 These variant articulations will not be marked elsewhere throughout the thesis in the phonetic notations.
lola ['lo.1oq] 'grandmother'
lunes [lu.'nes] 'tarnish'

[1] in medial position:
killo [kI1.'loq] 'crooked'
belnas [bel'nas] 'rinse'
kalding [kal.'diŋ] 'goat'
soldado [sol.'da.doq] 'soldier'
bulsek [bul.'sek] 'blind'

[1] in final position:
kudil ['ku.dIl] 'skin'
bukel [bu.'kel] 'seed'
adal ['qa.dal] 'learning'
isakmol [qI.'sak.mol] 'to mouth'
asul [qa.'sul] 'blue'

3.234 Alveolar Flap [r]

The nasal resonator is completely shut off by the velo-pharyngeal closure. The tongue tip is raised up toward, but not touching, the alveolar ridge. The back margins of the tongue touch the upper molars - this makes a hollow at the center of the tongue into which the breath stream is channelled and then emitted through the alveo-lingual contact. The Ilokano [r] is usually produced with a single flap, i. e., the tongue tip taps only once against the alveolar ridge, as in pera ['pe.roq] 'cent.' In the case of gemination, however, the [r] is produced with a
lingual roll; i. e., a rapid succession of four or more taps by the tip of the tongue on the alveolar ridge. The rolling of the [r] is perceptible in *perres* ['per.'res] 'lemon juice' but not in *pera* above. Other examples are:

- **kirrit** [kIr.'ri.qIt] 'dried fruit'
- **gerret** [ger.'ret] 'slice'
- **karra** [kar.'raq] 'spinning awry of tops'
- **torre** ['tor.req] 'tower'
- **gurrood** [gUr.'ro.qod] 'thunder'

Lip position for [r] depends upon that of the adjacent vocoid, thus, the lips are spread for the first [r] and then rounded for the second in *riro* ['ri.roq] 'confusion.'

[r] in initial position:

- **rigat**  ['ri.gat] 'difficulty'
- **regta**  [reg.'taq] 'righteousness'
- **rakit**  ['ra.kIt] 'raft'
- **rosal**  [ro.'sal] 'gardenia'
- **rusat**  ['ru.sat] 'start'

[r] in medial position:

- **sirib**  ['si.rIb] 'wisdom'
- **verde**  ['ver.deq] 'green'
- **korona**  [ko.'ro.naq] 'crown'
- **kurang**  ['ku.run] 'insufficient'
[r] in final position:

bangir ['baŋIr] 'the other side'
taer [tœ'qer] 'elegance'
agungar [qœ'guŋar] 'to revive'
kasaor [kœ'saŋor] 'east wind'
kurikur [kœ'riŋur] 'earpick'

3.235 Fricatives [f, v, s, h, ŋ]

Fricative contoid articulations involve a partial obstruction made by two speech organs brought sufficiently close together for the outgoing breath stream to produce audible friction. The friction may be voiced or breathed. The velum is raised and the nasal resonator shut off.

3.2351 Labio-Dental Fricatives [f, v]

A partial obstruction to the air stream is formed between the inner surface of the lower lip and the edge of the upper teeth. The friction is voiceless or breathed for [f] and is voiced for [v]. The actual point of labio-dental contact varies according to the point of articulation of the adjacent vocoids. Thus, the contact on the lower lip tends to be more fronted in veses ['ve.ses] 'times' than in voses ['vo.ses] 'voice.'

[f] and [v] occur only in loan words, in initial and medial positions, never syllable final or word final.
[f] and [v] in initial position:

- **fin**o ['fi.noq] 'fine'
- **fer**ia ['fer.ryaq] 'holiday fair'
- **fal**a ['fal.doq] 'skirt'
- **for**ma ['for.maq] 'form, shape'
- **fun**do ['fun.doq] 'fund'
- **visor**a [vI.'si.taq] 'visitor'
- **ver**de ['ver.deq] 'green'
- **vapor** [vo.'por] 'boat, ship'
- **vot**ante [vo.'tan.teq] 'voter'

[f] and [v] in medial position:

- **Teofila** ['tyo.fI.laq] 'a girl's name'
- **Kafe** [ka.'feq] 'coffee'
- **Josefa** [ho.'se.faq] 'a girl's name'
- **R**ufo ['ru.foq] 'a boy's name'
- **servisio** [ser.'vi.syoq] 'service'
- **Se**verino [se.ve.'ri.noq] 'a boy's name'
- **lav**andera [la.van.'de.roq] 'laundry woman'
- **Navotas** [na.'vo.tas] 'name of a town'

3.2352 Dental Fricative [s]

For the Ilokano [s], the upper and the lower teeth are in near occlusion. The side margins of the tongue touch the upper side teeth. This forms a narrow groove in the center of the tongue into which the breath stream is chan-
neled and forced through the dental point of near occlusion, producing a hissing fricative sound. Lip position for [s] depends upon that of the adjacent vocoid, e.g., the lips are rounded for the first [s] and then spread for the second in *susik* ['su.sIk] 'dispute.' [s] is the only Ilokano fricative contoid without a voiced counterpart.

**[s] in initial position:**

<table>
<thead>
<tr>
<th>Word</th>
<th>[sI.'qit]</th>
<th>'thorn'</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>siit</em></td>
<td>[sI.'qit]</td>
<td>'thorn'</td>
</tr>
<tr>
<td><em>sellag</em></td>
<td>[sel.'lag]</td>
<td>'moonlight'</td>
</tr>
<tr>
<td><em>sao</em></td>
<td>[sO.qoq]</td>
<td>'word, utterance'</td>
</tr>
<tr>
<td><em>Soledad</em></td>
<td>[so.le.'dad]</td>
<td>'a girl's name'</td>
</tr>
<tr>
<td><em>suka</em></td>
<td>[sU.'kaq]</td>
<td>'vinegar'</td>
</tr>
</tbody>
</table>

**[s] in medial position:**

<table>
<thead>
<tr>
<th>Word</th>
<th>[rIs.'sik]</th>
<th>'spark'</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>riSSik</em></td>
<td>[rIs.'sik]</td>
<td>'spark'</td>
</tr>
<tr>
<td><em>kessen</em></td>
<td>[kes.'sen]</td>
<td>'shrinkage'</td>
</tr>
<tr>
<td><em>kasla</em></td>
<td>[kO.s.'aq]</td>
<td>'like, same as'</td>
</tr>
<tr>
<td><em>kosina</em></td>
<td>[ko.'si.naq]</td>
<td>'kitchen'</td>
</tr>
<tr>
<td><em>kuspag</em></td>
<td>[kU.s.'pag]</td>
<td>'arrogance'</td>
</tr>
</tbody>
</table>

**[s] in final position:**

<table>
<thead>
<tr>
<th>Word</th>
<th>[qar.'bis]</th>
<th>'shower'</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>arbis</em></td>
<td>[qar.'bis]</td>
<td>'shower'</td>
</tr>
<tr>
<td><em>anges</em></td>
<td>['qa.'jes]</td>
<td>'breath'</td>
</tr>
<tr>
<td><em>agas</em></td>
<td>['qa.gas]</td>
<td>'medicine'</td>
</tr>
<tr>
<td><em>bulos</em></td>
<td>['bu.los]</td>
<td>'astray'</td>
</tr>
<tr>
<td><em>dalus</em></td>
<td>[dO.'lus]</td>
<td>'cleanliness'</td>
</tr>
</tbody>
</table>
3.2353 Glottal Fricatives [h; ŕ]

Ilokano has both the voiceless [h] and the voiced [ɾ] glottal fricative contoids. [h] occurs only in syllable initial, prevocalic position. It is produced by the passage of a strong voiceless breath stream through the open glottis - the opening between the vocal bands. Actually, the friction is produced in the oral cavity rather than at the glottis, and is associated with the articulation of the following vocoid. This situation makes for the different patterns of resonance for [h] in [hi], [he], [ha], [ho], and [hu].

Since all vocoids are voiced, the voiceless [h] becomes voiced [ɾ] in intervocalic position because it partakes of the voiced quality of the adjacent vocoids. The pronunciation of [ɾ], therefore, seems to be accompanied by vocal band vibration.

[h] in initial position:

- **historia** [hIr.'tor.ryqa] 'history'
- **hefe** ['heefe] 'chief'
- **harana** [hr.'ra.nara] 'serenade'
- **Jorge** ['hor.heq] 'a boy's name'
- **husto** [hUs.'toq] 'right'
[h] in medial position:

- **ahit** ['qa.hIt] 'shave'
- **kahel** [kα.ˈhel] 'green oranges'
- **kaha** ['ka.ʰaq] 'box'
- **Bohol** [bo.ˈhol] 'name of a province'

3.236 **Semivocoids** [w, y]

From an articulatory standpoint the semivocoids, [w] and [y], differ from the constrictive contoids in the degree of oral stricture present. In this section, however, they are treated as contoids mainly because they function and distribute as such - i.e., as syllable margins rather than syllable nuclei. [w] and [y] initiate syllables and participate as the second or third member of a prevocalic contoid cluster.

3.2361 **Labio-velar Semivocoid** [w]

In the articulation of [w], the velum is raised, the vocal bands vibrate, and the tongue assumes the position for [u] and glides rapidly to the position of the following vocoid. Lip position for [w] depends upon that of the adjacent vocoid; e.g., the lips are slightly rounded in the first [w] and then spread in the second, in wawek [wa.ˈwek] 'insert a dagger in a wound.' [w] is devoiced after [t] and [k], as in twalya [tˈwalya] 'towel'; kwintas ['kwintas] 'necklace'.
[w] in initial and medial positions:

**wlng** [wi.'nI.wIŋ] 'shake head in dissent'
**welwel** [wel.'wel] 'slothful'
**watiwat** [wa.'ti.wat] 'long distance'

3.2362 Palatal Semivocoid [y]

For the voiced palatal semivocoid [y], the tongue assumes the position for [i] and glides immediately to the position of the following vocoid. [y] is devoiced when it follows the voiceless plosives, [p, t, k], in a contoid cluster. Before [y], [t, d, k, g, n, η, l] are palatalized.

[y] in initial and medial positions:

**yeg** [yeg.'yeg] 'tremble'
**yakayak** [ya.'ka.yak] 'sieve'
**yubuyub** [yu.'bu.yUb] 'sound of the bellows'

3.24 Contoid Clusters

A sequence of two or more contoids without an intervening vocoid or syllable division constitutes a contoid cluster. In the indigenous phonological system of Ilokano, there were no contoid clusters apart from the sequence of initial plosives, [p, t, k, b, d] plus a semivocoid [w] or [y], and the gemination of plosives followed by [l, r, w, y]. [gw], however, represents a "hole" or case vide in the system.
The following examples illustrate the point:

- puak [ˈpwak] 'caudal fin'
- tuad [ˈtwad] 'a long fish net'
- kuak [ˈkwak] 'mine'
- buaya [ˈbwa.yə] 'crocodile'
- dua [ˈdwa] 'two'
- gu__
- piek [ˈpyek] 'chick'
- tian [ˈtyan] 'tummy'
- kiad [ˈkyad] 'walk with abdomen protruding'
- biag [ˈbyag] 'life'
- diay [ˈdyal] 'that'
- giak [ˈgyak] 'a kind of hornet'
- aplat [qap.ˈplat] 'aphid'
- apro [qap.ˈpro] 'bile'
- tapuak [təp.ˈpwak] 'dive'
- lupias [lUp.ˈpyas] 'overflow'
- bitla [bIt.ˈtla] 'speech, discourse'
- pastreken [pɔst.ˈrekən] 'to let in'
- bituen [bIt.ˈtweŋ] 'star'
- patiem [pət.ˈtyem] 'believe it'
- aklo [qək.ˈklo] 'laddle'
- takrot [tək.ˈkrot] 'coward'
- sikuan [sIk.ˈkwəŋ] 'a native spool'
- takiaŋ [tək.ˈkiaŋ] 'arm'
Thus, contoid clustering, other than the types illustrated above, does not fit the native phonetic habits of most old people, and the resistance to it is shown by the following phenomena in their pronunciation of loan words:

(1) An intrusive vocoid between the clusters:

<table>
<thead>
<tr>
<th>English</th>
<th>Phonemic Representation</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>plato</td>
<td>[ˈpla.tɔ] &gt; [pa.ˈla.tɔ]</td>
<td>'plate'</td>
</tr>
<tr>
<td>prinsepe</td>
<td>[ˈprin.si.pe] &gt; [pi.ˈrin.si.pe]</td>
<td>'prince'</td>
</tr>
<tr>
<td>trabaho</td>
<td>[tra.ˈba.ho] &gt; [ta.ɾa.ˈba.ho]</td>
<td>'sork'</td>
</tr>
<tr>
<td>klase</td>
<td>[ˈkla.se] &gt; [ka.ˈla.se]</td>
<td>'class; kind'</td>
</tr>
<tr>
<td>braso</td>
<td>[ˈbra.so] &gt; [ba.ˈra.so]</td>
<td>'arm'</td>
</tr>
<tr>
<td>Andres</td>
<td>[ɡon.ˈdres] &gt; [ɡon.de.ˈres]</td>
<td>'Andrew'</td>
</tr>
</tbody>
</table>
(2) A prosthetic vocoid introduced before the s-clusters occurring initially in English loan words:

ispeling  [qIs.'pe.lIn] 'spelling'
ispiker     [qIs.'pi.ker] 'speaker'
istambay   [qIs.tom.'baI] 'stand by'
eskeleton  [qes.'ke.le.ton] 'skeleton'

The prosthetic vocoid phenomenon may be attributed to the influence of Spanish loan words in the Ilokano lexicon, for example:

estasion  [qes.ta.syön] 'stateion'
espesial   [qes.pe.'syal] 'special'
eskoba     [qes.'ko.bəq] 'shoe brush'

(3) The elision of either element in a contoid cluster, as in the following few cases:

report     [re.'pot]   'report'
post (office) ['pos]   'post'
compadre   [kom.'pa.req] 'one's child's godfather'

The first and third phenomena are deviant phonetic realizations that can safely be ignored since they do not follow the normal pattern which has become firmly established. And since Spanish and English loan words are in common use by a great majority of the native speakers of Ilokano, many foreign sounds and sound patterns have become assimilated into the native phonological system. In cases where the assimilation entailed gross violation of the native phonetic habits,
Phonetic compromises were often made, such as the gemination of the plosives initiating medial clusters in Spanish loan words, e.g.:

kopra [ko.praq] > [kop.'praq] 'copra'
katre [ka.treq] > [kat.'treq] 'bed'
lakre [la.kreq] > [lak.kreq] 'sealing wax'
libro ['li.broq] > [lib.'broq] 'book'
eroplano [qe.ro.'pla.noq] > [qe.rop.'pla.noq] 'airplane'
tabla ['ta.blaq] > [tab.'blaq] 'board, slab'
regla ['re.glaq] > [reg.'glaq] 'foot ruler'

Thus, there are three contoid cluster types permitted in the sound pattern of Ilokano. They are:

Prevocalic, Initial Clusters (IK)

\[ C_1C_2V \]

Prevocalic, Medial Clusters (MK)

\[ CV.C_1C_2V \]

or

\[ CVC_1.C_1C_2C_3V \]

Postvocalic, Final Clusters (FK)

\[ \_VC_1C_2 \]

---

Where: I, M, F = Initial, Medial, Final, respectively.
K = Contoid Cluster.
3.241 Prevocalic, Initial Contoid Clusters

In Ilokano, prevocalic initial clusters are limited to two contoids, hence the pattern

\[ \text{IK} \rightarrow C_1 C_2 V^- \]

which is represented by four phonetic rules:

**IK**₁ → \[ C_1 \left[ \begin{array}{c} p, k, \\ b, g, \\ f \end{array} \right] + C_2 [l] \]

**IK**₂ → \[ C_1 \left[ \begin{array}{c} p, t, k, \\ b, d, g, \\ f \end{array} \right] + C_2 [r] \]

**IK**₃ → \[ C_1 \left[ \begin{array}{c} p, t, k, \\ b, d, g, \\ m, n, \\ f, v, \\ s, h \end{array} \right] + C_2 [w] \]

**IK**₄ → \[ C_1 \left[ \begin{array}{c} p, t, k, \\ b, d, \\ m, n, y, \\ l, r, \\ f, v, \\ s \end{array} \right] + C_2 [y] \]

---

41 Exception: The contoid, [\(\text{q}\)], a glottal stop, does not enter into clusters of any type.
The following examples illustrate the IK rules:

**IK₁ [pl]**
- plegis ['ple.gis] 'fold, plait'
- plasa ['pla.saq] 'plaza, square'
- pluma ['plu.maq] 'plume, writing pen'
- klima ['kli.maq] 'climate'
- Clemente ['kle.'men.teq] 'a boy’s name'
- klase ['kla.seq] 'class, kind'
- kloro ['klo.roq] 'chlorine'
- blangko ['blan.koq] 'blank'
- bloke ['bloikeq] 'block'
- blusa ['blu.saq] 'blouse'
- Gliceria ['gli.'ser.ryaq] 'a girl's name'
- Glenda ['glen.dcq] 'a girl’s name'
- gladiola ['glad.'dyo.1cq] 'gladiola'
- gloria ['glor.ryaq] 'glory'
- glu ['gluq] 'glue'
- flete ['fle.teq] 'fare'
- flan ['flan] 'custard'
- florera ['flo.'re.roq] 'flower vase'

**IK₂ [pr]**
- primo ['pri.moq] 'cousin'
- presio ['pre.syoq] 'price'
- praktis ['prak.'tis] 'practice, exercise'
- pronto ['pron.toq] 'ready'
- tripa ['tri.paq] 'tripe, entrails'
- trese ['tre.seq] 'thirteen'
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>trahe</td>
<td>[ˈtra.hɛ], [ˈtra.ɦɛ]</td>
<td>'gown'</td>
</tr>
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<td>[ˈtro.so], [ˈtɾo.so]</td>
<td>'log of wood'</td>
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<td>[trʌmˈpe.tə], [tɾʊmˈpe.tə]</td>
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<td>[ˈkri.sɪs]</td>
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<td>[ˈkre.mə]</td>
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<td>[ˈkra.ker]</td>
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<td>[ˈkro.sin]</td>
<td>'crossing'</td>
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<td>'cross'</td>
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<td>[brɪ.ˈlaɪ.a.nə]</td>
<td>'diamond'</td>
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<td>[ˈbren.də]</td>
<td>'a girl's name'</td>
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<tr>
<td>braso</td>
<td>[ˈbra.so]</td>
<td>'arm'</td>
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<tr>
<td>brocha</td>
<td>[ˈbrɔ.ʃə]</td>
<td>'painter's brush'</td>
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<td>[ˈbru.lə]</td>
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<td>'a family name'</td>
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<td><strong>IK₂₄ [py]</strong></td>
<td><strong>piek</strong></td>
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<td><strong>pia</strong></td>
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<td></td>
<td><strong>Pio</strong></td>
<td>['pyoq']</td>
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<td><strong>chismis</strong></td>
<td>['tyIs. 'mis']</td>
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<td><strong>cheke</strong></td>
<td>['tye.keq']</td>
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<td><strong>tian</strong></td>
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<td><strong>Choleng</strong></td>
<td>['tyo.leg']</td>
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<td><strong>[by]</strong></td>
<td><strong>bienes</strong></td>
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<td><strong>bienx</strong></td>
<td>['byan']</td>
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<td><strong>[dy]</strong></td>
<td><strong>dies</strong></td>
<td>['dyes']</td>
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<td><strong>diaya</strong></td>
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<td><strong>Nieves</strong></td>
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<td><strong>niog</strong></td>
<td>['nyog']</td>
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<td><strong>[ȵy]</strong></td>
<td><strong>ngiaw</strong></td>
<td>['ȵyaU']</td>
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<td><strong>[iy]</strong></td>
<td><strong>lievo</strong></td>
<td>['iye.voq']</td>
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<td><strong>liave</strong></td>
<td>['iya.veq']</td>
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<td><strong>rienda</strong></td>
<td>['ryen.daq']</td>
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<td><strong>riat</strong></td>
<td>['ryat']</td>
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<tr>
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<td><strong>riuma</strong></td>
<td>['ryu.maq']</td>
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</table>
The medial clusters referred to are those sequences of two or three contoids occurring immediately after the syllable boundary, (.). Ilokano has no postvocalic medial clusters - i.e., occurring before a syllable boundary - except for the loan word, ekstra [æks.trə] 'extra.' Therefore,

\[ \text{MK} \quad \longrightarrow \quad -VC_{1}.C_{1}C_{2}(C)V- \]

\( C_{1}(1) \) indicates that there is always a pre-boundary \( C \), which may or may not be the first element of a gemination. For example, compare

-VC_{1}C_{1}C_{2}V-

kopra [kɔprə] 'coconut, copra'
katre [katə'tɾə] 'bed'

to

-VC.C_{1}C_{2}V-

kompra [komprə] 'buy'
sastre [sas'tɾə] 'tailor'
.C₁C₂C₃ is a marginal sequence pattern; C₃ is always a semivocoid, [w] or [y].

The rules for the Ilokano medial contoid clusters (MK) are similar to those for the initial contoid clusters, IK₁,₂,₃,₄. There are, however, a few exceptions and additions, thus:

MK₁ = IK₁ except C₁ [f] but including [t, d]
MK₂ = IK₂
MK₃ = IK₃ except C₁ [v, h]
MK₄ = IK₄ but including C₁ [g, h]

Three additional rules to account for C₃ in the .C₁C₂C₃ cluster pattern are as follows:

MK₅ ----→ C₁ \[p, t, b, d\] + C₂ [r] + C₃ [y]
MK₆ ----→ C₁ [p] + C₂ [l] + C₃ [y]
MK₇ ----→ C₁ [p] + C₂ [r] + C₃ [w]

For the MK rules the following examples are adduced:
MK₁ [pl] supplemento [sUp.ple.'men.toq] 'supplement'
          kuplat [kUp.'plat] 'peel off'
templaen [tem.'pla.qen] 'to moderate'
[tl] kapitlo [kα.'pit.tloq] 'third degree cousin'
[kl] buklis [bUK.'klis] 'greedy'
buklen [bUK.'klen] 'to form into a whole'
biklat [bik.'klat] 'cobra'
saklot [sak.'klot] 'laps'
[bl] subli [sub.'bliq] 'return'
sable [sab.'bleq] 'saber, cutlass'
ablat [qab.'blat] 'lash'
nablo [nab.'bloq] 'maimed'
[dl] padles [pad.'dles] 'prediction'
[gl] paglen [pag.'glen] 'to prohibit'
reglamento [reg.glα.'men.toq] 'regulation'
piglat [pig.'glat] 'scar'
siglot [sig.'glot] 'knot'

MK₂ [pr] sapri [sap.'priq] 'rain passing through interstices'

representante [rep.pre.sen.'tan.teq] 'representative'
tupra [tUp.'praq] 'sputum'
apro [qap.'proq] 'bile'
[tr] Patricio [pat.'tri.syoq] 'Patrick'
matrera [mat.'tre.toq] 'shrewd woman'
kontra [kon.'troq] 'inimical, against'
maestro [ma.'qes.troq] 'male teacher'
konkreto ['kon.kre.to] 'concrete'
napokray ['nap.ok.ral] 'friable, crumbly'
bukros ['buk.ros] 'corpulent, obese'
Abril ['aq.rib] 'April'
sobre ['sob.ber] 'envelope'
sobra ['sob.ber] 'extra'
masabrot ['ma.sab.ber] 'can compensate for'
padrino ['pa.dri.no] 'godfather'
madre ['ma.dre] 'nun'
Alejandro ['a.le.ahan.dro] 'Alexander'
ingreso ['ing.re.so] 'submit, deposit'
ingrata ['ing.gra.ta] 'ingrate'
logro ['log.ro] 'profit'
Alfredo ['aq.a fred.o] 'Alfred'
tapwak ['tap.pwak] 'dive'
bituen ['bit.twen] 'star'
batuag ['bat.twag] 'tilted, seesaw'
akoen ['aq.ken] 'to admit graciously'
eskwela ['ques.kwe.la] 'school'
sanikua ['sa.ni.kwa] 'property'
rubuat ['rub.twat] 'preparation to leave'
kadua ['ka.dwa] 'partner, companion'
agua ['aq.wa] 'perfume'
taguan ['tag.gwa] 'car'
<table>
<thead>
<tr>
<th>Code</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>mw</td>
<td>ammoen</td>
<td>'to know, find out'</td>
</tr>
<tr>
<td></td>
<td>rumuar</td>
<td>'to exit'</td>
</tr>
<tr>
<td>nw</td>
<td>an-anoen</td>
<td>'How?'</td>
</tr>
<tr>
<td></td>
<td>banuar</td>
<td>'hero'</td>
</tr>
<tr>
<td>qw</td>
<td>sangoanan</td>
<td>'in front of'</td>
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<tr>
<td></td>
<td>dungngoen</td>
<td>'to love'</td>
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<td>sw</td>
<td>passuit</td>
<td>'whistle'</td>
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<td>assuang</td>
<td>'witch'</td>
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<thead>
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<th>Term</th>
<th>Definition</th>
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</thead>
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<tr>
<td>py</td>
<td>apien</td>
<td>'to cut obliquely'</td>
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<td></td>
<td>kopia</td>
<td>'copy'</td>
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<td></td>
<td>limpio</td>
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<td>koche</td>
<td>'car'</td>
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<td>achara</td>
<td>'pickles'</td>
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<td></td>
<td>ancho</td>
<td>'width, breadth'</td>
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<tr>
<td>ky</td>
<td>pakiauw</td>
<td>'gross purchase'</td>
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<td>Bustaquio</td>
<td>'a boy's name'</td>
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<td>by</td>
<td>ab-abien</td>
<td>'to villify'</td>
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<td>amianan</td>
<td>'north'</td>
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<tr>
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<td>premio</td>
<td>'prize'</td>
</tr>
</tbody>
</table>
baniera [ban.'nye.raq] 'bathtub'
banias [ban.'nyas] 'iguana'
banico [pan.'nyoq] 'handkerchief'
sanjo [saq.'qyoq] 'shrew'
kalve [kal.'lyeq] 'street'
al-alye [qal.qal.'lyaq] 'ghost'
repolyo [re.'pol.nyq] 'cabbage'
paria [par.'fyaq] 'bitter melon'
pariok [par.'fyok] 'large frying pan'
rosario [ro.'sar.nyq] 'rosary'
iinfiero [qIn.'fyer.nyq] 'hell'
confiansa [kon.'fyen.soq] 'confidence, trust'
Noviembre [no.'vyem.breq] 'November'
novio ['no.vyq] 'fiance'
pasear [pas.'syar] 'stroll'
pasion [pas.'syon] 'passion (Lenten hymns)'
religion [re.ll.'hyon] 'religion'
empleado [qem.'puya.doq] 'employee'
empleo [qem.'plyoq] 'employment'
nasaprian [na.saq.'pryan] 'besprinkled'
industria [qIn.'dus.tryq] 'industry'
nabriat [qAb.'dryat] 'torn'
Adriano [qAd.'drya.noq] 'a boy's name'
aproan [qAp.'prwan] 'add bile to'
3.243 Postvocalic, Final Contoid Clusters (FK)

Final clusters are very restricted in occurrence - i.e., only in English loan words - in the Ilokano phonological system. It will be noted that most of the English loan words in which they occur have been Ilokanized.

The sequential pattern for final contoid clusters in Ilokano is

\[
\text{FK} \rightarrow -\text{VC}_1\text{C}_2
\]

which is phonetically realized in the following rules:

\[
\begin{align*}
\text{FK}_1 & \rightarrow \text{C}_1 \begin{bmatrix} \text{k} \\ \text{n} \\ \text{j} \\ \text{r} \end{bmatrix} + \text{C}_2 [s] \\
\text{FK}_2 & \rightarrow \text{C}_1 \begin{bmatrix} \text{j} \\ \text{r} \end{bmatrix} + \text{C}_2 [k] \\
\text{FK}_3 & \rightarrow \text{C}_1 [r] + \text{C}_2 [t] \\
\text{FK}_4 & \rightarrow \text{C}_1 [s] + \text{C}_2 [t]
\end{align*}
\]
The following examples illustrate the four FK rules:

<table>
<thead>
<tr>
<th>Rule</th>
<th>Example</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>FK₁</td>
<td>Felix [‘fe.ɪks]</td>
<td>komiks [‘ko.ɪks]</td>
<td>Alex [‘qa.leks]</td>
</tr>
<tr>
<td></td>
<td>bins (pork and) [‘bins]</td>
<td>[ns]</td>
<td>beans'</td>
</tr>
<tr>
<td></td>
<td>bangs [‘bæŋs]</td>
<td>[qs]</td>
<td>'a type of hairdo'</td>
</tr>
<tr>
<td></td>
<td>nars [‘nars]</td>
<td>[rs]</td>
<td>'nurse'</td>
</tr>
<tr>
<td>FK₂</td>
<td>Frank [‘fræŋk]</td>
<td>[ŋk]</td>
<td>'Frank'</td>
</tr>
<tr>
<td></td>
<td>pork (barrel) [‘pɔrk]</td>
<td>[rk]</td>
<td>'pork'</td>
</tr>
<tr>
<td>FK₃</td>
<td>Bert [‘bɑrt]</td>
<td>ekspert [‘ɛks.pɜrt]</td>
<td>erport [‘ɛr.port]</td>
</tr>
<tr>
<td></td>
<td>kard [‘kɑrd]</td>
<td>[rd]</td>
<td>'card'</td>
</tr>
<tr>
<td></td>
<td>blakbord [bləkˈbɔrd]</td>
<td>[bd]</td>
<td>'blackboard'</td>
</tr>
<tr>
<td>FK₄</td>
<td>post (Office) [‘pɔst]</td>
<td>[st]</td>
<td>'post'</td>
</tr>
</tbody>
</table>
3.3 THE SUPRASEGMENTS IN DETAIL

The phonetic analysis of Ilokano that has so far been presented deals largely with the sounds of speech as individual linear segments and separable units. Since speech is a dynamic continuum rather than a string of static individual sounds, it is important to take into account the way in which the discrete phones are grouped together in actual discourse. Thus, in the following subsections will be described the unifying features of the speech continuum: the suprasegmental features of stress, length, juncture, and pitch and intonation. These extend over stretches of many linear segments, hence some linguists call them plurisegmental features.

Suprasegmental features in Ilokano are restricted to the phenomena of stress, length, and pitch and intonation - juncture tying in very closely with pitch and intonation. Along with their unifying influence, all three features will be considered in terms of the degree of prominence each gives to a syllable in comparison with other syllables in the linear sequence.

3.31 Stress and Rhythm

Stress refers to the relatively great breath effort and the loudness with which a sound or syllable is articulated. It is a feature of accent or prominence. Ilokano syllables are either strongly stressed (') or weakly stressed (unmarked).
Thus, in the polysyllabic word, for example:

\textit{aglilinemangan} \ [\textit{qag.1I.'lin.nem.me.'jan}] 'play hide and seek'

the third and last syllables are given prominence by the strong stress, the others subordinated by weak stress.

Subsequent examples will show that the stress pattern of Ilokano is fixed, in the sense that the strong stress always falls on a particular syllable of any given word. Thus, the strong stress falls regularly:

1. on the first syllable in the dissyllabic forms
   \textit{tudo} \ ['tu.doq] 'rain'
   \textit{sipit} \ ['si.pIt] 'tongs'
   \textit{bayad} \ ['ba.yad] 'payment';

2. on the medial syllable in the polysyllabic forms
   \textit{kawayan} \ [\textit{ka.'wa.yan}] 'bamboo'
   \textit{nalabasit} \ [\textit{na.la.'ba.sIt}] 'red'
   \textit{bullalayaw} \ [\textit{bU1.la.'la.yqU}] 'rainbow';

3. on the last syllable in the dissyllabic and polysyllabic forms
   \textit{adu} \ [\textit{qa.'duq}] 'many'
   \textit{aluten} \ [\textit{qa.IU.'ten}] 'firebrand'
   \textit{kulalanti} \ [\textit{kU.Ia.Ia.'tiq}] 'firefly'.

But the stress is free and dynamic, in the sense that it is not tied to any particular syllable in the process of morphological expansion using affixes.

Ilokano, as pointed out earlier, is agglutinative, i. e., it makes grammatical use of many affixes. Thus, the
analysis of its stress patterns starts with the base or root morphemes and proceeds to the word forms with bound morphemes, the affixes: prefix, infix, and suffix. Delving into morphological details, such as defining the types of the bound morphemes, is beyond the scope of this analysis. It merely aims to demonstrate the stress dynamics of Ilokano at the morpheme level, thus:

<table>
<thead>
<tr>
<th>Stress Pattern</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>'xx</td>
<td>bilang</td>
</tr>
<tr>
<td>o'xx</td>
<td>agbilang</td>
</tr>
<tr>
<td>x'xo</td>
<td>bilangen</td>
</tr>
<tr>
<td>ox'xo</td>
<td>ibilangan</td>
</tr>
<tr>
<td>o'xo'xo</td>
<td>agbinnilangan</td>
</tr>
<tr>
<td>oo'xo'xo</td>
<td>agbibinnilangan</td>
</tr>
<tr>
<td>oo'xo'xo</td>
<td>makibinnilanganen</td>
</tr>
<tr>
<td>oo'xo'xo'oo</td>
<td>makibinnilanganenen</td>
</tr>
<tr>
<td>'xx</td>
<td>pudot</td>
</tr>
<tr>
<td>o'xx</td>
<td>napudot</td>
</tr>
</tbody>
</table>

Where: \( x \) = syllable of the base morpheme.
\( o \) = syllable of the bound morpheme or affix.
\( ' \) = stress mark before the stressed syllable.
| oxx'xx | napudpudot | [na.pUd.'pu.dot] | 'hotter' |
| ooo'xx | nakapudpudot | [na.k.a.pUd.'pu.dot] | 'very hot' |
| ox'xo | kapudutan | [ka.pU.'du.tan] | 'hottest' |
| oox'xo | kapudpudutan | [ka.pUd.pU.'du.tan] | 'while still hot' |
| oo'xo'xo | makipinnudutan | [ma.kI.'pin.nU.'du.tan] | 'idiom - to fan the embers' |
| x'xx | paliiw | [pa.'li.qIU] | 'observation' |
| ox'xx | agpaliiw | [qag.pa.'li.qIU] | 'to observe (v.i.)' |
| oox'xx | agpalpaliiw | [qag.pal.pa.'li.qIU] | 'is observing' |
| xx'xo | paliiwen | [pa.lI.'qi.wen] | 'to observe (v.t.)' |
| o'xo'xxo | agpinnaliwen | [qag.'pin.na.'li.qI.wen] | 'to observe each other now' |
| o'ox'xo | pagpalpaliwan | [pag.'pal.pa.lI.'qi.wan] | 'time allotted to observation' |
| oo'xo'xx | agpipinnaliiw | [qag.pI.'pin.na.'li.qIU] | 'to observe one another' |
| ooo'xoo'xx | makipagpinpinnaliiw | [ma.kI.pag.'pin.pIn.na.'li.qIU] | 'uncalled for participation in an observation' |
| x'x | ayat | [qa.'yat] | 'love' |
| ox'x | naayat | [na.qa.'yat] | 'loving' |
| xx'o | ayaten | [qa.ya.'ten] | 'to love' |
| oo'ox'x | nakaay-ayat | [na.k.a.'qaI.qa.'yat] | 'lovely' |
| oox'x | panagayat | [pa.na.qa.'yat] | 'way of loving' |
| oxx'o | pagayatan | [pa.qa.ya.'tan] | 'liking, desire' |
| oo'ooox'x | makiinnayavan-ayat | [ma.kI.'qin.na.ya.n.qa.'yat] | 'to be in love with' |
The phonetic stress patterns of Ilokano may be summarized as follows:

<table>
<thead>
<tr>
<th>Stress Pattern</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Word Forms with One Strong Stress</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Ultimate</td>
<td></td>
</tr>
<tr>
<td>x'x lemmeng</td>
<td>[lem.'meŋ] 'in hiding'</td>
</tr>
<tr>
<td>ox'x ilemmeng</td>
<td>[qI.lem.'meŋ] 'to hide'</td>
</tr>
<tr>
<td>oxx'o ilemmengan</td>
<td>[qI.lem.me.'yan] 'to hide from'</td>
</tr>
<tr>
<td>o'xox'o aglinnemmengan</td>
<td>[qa.gl.in.nem.me.'yan]</td>
</tr>
<tr>
<td>(b) Penultimate</td>
<td></td>
</tr>
<tr>
<td>'xx sagad</td>
<td>[sa.god] 'broom'</td>
</tr>
<tr>
<td>x'xx apigod</td>
<td>[qa.'pi.god] 'left-handed'</td>
</tr>
<tr>
<td>xx'xx talimudaw</td>
<td>[ta.lI.'mu.daU] 'vertigo'</td>
</tr>
<tr>
<td>xxx'xx alumpipinig</td>
<td>[qa.lUm.pl.'pi.nig] 'wasp'</td>
</tr>
</tbody>
</table>

43 Disregarding the morpheme type - base or affix - to which the syllables belong. Stress is the pertinent aspect in question. Each "x" represents a syllable.
(c) Antepenultimate

\[ x'xxx \]

karissabong \([ka.'ris.sa.bon]\)

'young fruit'

\[ xxx'xxx \]

agparintumengen \([qag.pa.rIn.'tu.me.gen]\)

'to kneel kown now'

Word Forms with Two Stresses

(a) Pre-ultimate

\[ xx'xx'x \] makaay-ayat

\[ x'xxx'x \] aglinemmengan

\[ xx'xxx'x \] aglinlinemmengan

\[ xx'xxxx'x \] makiinnayan-ayat

(b) Pre-penultimate

\[ x'xx'xx \] agbinnilangan

\[ xx'xx'xx \] makibinnilangan

\[ x'xxx'xx \] pagpalpaliwan

\[ xxx'xxx'xx \] makipagpinpinnaliw

\[ xx'xxxx'xx \] makilinlinemmenganen

(c) Pre-antepenultimate

\[ x'xx'xxx \] agpinnaliwen

\[ xx'xx'xxx \] makibinbinnilanganen

Rhythm results from the occurrence and recurrence of strongly stressed and weakly stressed syllables in utterances

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For the phonetic transcriptions and glosses, refer to pages 124 through 126.
longer than the word. In Ilokano, the syllable stress found at the word level generally retains its isolate-word identity in connected speech. For example,

Paliwen no saan a napudot ti aglilinemmengan.

[pa.ll.'qi.wen no sa.'qan qa na.'pu.dot ti qag.ll.'lin. nem.me.'gan] 'Observe it it is not too hot to play hide-and-seek.'

3.32 Length

The suprasegmental feature of length, [:], is associated with the duration of articulation of sounds or syllables. This duration or length of sounds is also called their quantity.

In Ilokano, length is a feature of prominence which is a complex of stress and length itself – at least in an open syllable occurring initially and medially. Thus, the first syllable is longer and, therefore, more prominent in pito ['pi:.toq] 'pipette' than it is in pito [pI.'toq] 'seven.'

A syllable in final position, however, is always short, whether or not it is strongly stressed. It takes as much time to pronounce [toq] as it does ['toq] in the examples above. Other examples illustrate the point further.

Compare: bagi ['ba:.giq] 'share' and bagi [ba.'giq] 'body'; basa ['ba:.saq] 'read' and basa [ba.'saq] 'wet'.
Contoid length is realized as gemination. The onset in the articulation of the first contoid of a geminate is followed by a hold or tenue, and then, with a renewed momentum across the syllable boundary, the second contoid is realized as the release or coda, blending as it were, with the next speech sound. For example,

- **tukkol** [tUK:.ol] > [tUK.'kol] 'break, snap'
- **labba** [lɔb:.aq] > [lɔb.'baq] 'large basket'
- **serrek** [ser:.ek] > [ser.'rek] 'entrance'

Syllable-final contoids are long when followed by a glottal stop, [q], thus:

- **nalap-it** [na.'lap:.qIt] 'pliable'
- **ud-od** [qUD:.qod] 'bargain'
- **nasam-it** [na.'sam:.qIt] 'sweet'
- **bin-ig** ['bin:.qIg] 'purely, exclusively'
- **sang-aw** [sqɔ:.qaU] 'breath'
- **bal-et** [bɔl:.qet] 'between'
- **agkir-in** [qog.kIɾ:.qin] 'to move slightly'
- **pes-akan** [pes:.qa.kon] 'to soak yarn or cloth'

Vocoids are generally lengthened at the end of questions or statements. This phenomenon of vocoid lengthening is induced by the suprasegmental feature of intonation. However, it can be a function of the individual speaker's unique speech habits or idiolect, and may thus be taken as an idiophone.
3.33 Juncture, Pitch and Intonation

3.331 Juncture

From a phonetic point of view speech is seldom divided into words. In overly careful speech, Mapan ka idiay. "Go (you) there." is uttered in its isolate-word forms, [mə.'pan kə qI.'dylə]; when said in a natural manner, however, it is realized as [mə.'paŋkəl'dylə]. The phenomenon of blending, due to assimilation [ŋk] and elision [kəl] > [kə], is obvious. Phonetically, therefore, the sounds in the whole utterance follow each other without interruption; there is nothing whatever of an articulatory or acoustic nature which corresponds, printwise, to the white space between words. Again, this demonstrates the concept of speech as a continuum, and of writing as an inaccurate manifestation of speech.

The way in which syllables blend together in contextual speech is here referred to as juncture. As a demarcating device, in Ilokano that is, this suprasegmental feature is observed at the end of a certain span of syllables; its unifying influence being coterminous with intonation. In fact, grammatical considerations along with pitch and intonation are brought to bear upon juncture placement in Ilokano.

The Ilokano dialect in question has only two juncture phones or junctones: a non-terminal junctone [|] which is a brief pause roughly equivalent to that represented by a comma in conventional orthography; and a terminal junctone
which represents a longer pause marking the end of a sentence. The dialect does not have the internal plus junc-
tone, [+], characteristic of English, which is perceptible
and distinctive in such pairs as:

[ˈnɑl+-trɛɪt] 'nitrate' and [ˈnɑlɪt+-rɛɪt] 'night rate'
[ɑ+-ˈneɪm] 'a name' and [ɑn ˈeɪm] 'an aim'.

3:332 Pitch and Intonation

Pitch, as an acoustic parameter of speech, has been
determined by acoustic phonetics as the number or frequency
of sound waves per second. Low-pitched sounds have relative-
ly low frequency, and a perceived rise in pitch is a correlate
of the increase in the number of sound waves per second.

Some linguists describe pitch in terms of levels, called
pitch levels (PL). These may be indicated by numbers in both
phonetic and phonemic transcriptions, thus:

<table>
<thead>
<tr>
<th>Pitch Level</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>4</td>
</tr>
<tr>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>Normal</td>
<td>2</td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
</tr>
</tbody>
</table>

Pitch level 4 is characterized by emphatic and emotional
speech. Only the natural speech in Ilokano which makes use of
the pitch phones [PL₁,₂,₃] will be considered in the present
discussion.

Pitch variations give a syllable prominence more effec-
tively than stress does. Thus, the syllable [pin] in napintas [na.'pin.tas] 'beautiful' when said on a monotone even with exaggerated stress, [x'xx], is not as prominent as when the stress is associated with pitch change, e. g., \[na.'pin.tas\]. However, pitch prominence at the morpheme level may be lost in connected speech while stress is more stable and the latter is always on a syllable with a potential change of pitch.

Pitch variations during speech - a combination of two or more of the pitch phones - constitute what is called a terminal contour or intonation. Intonation may be indicated by the symbol [↑], [↓], or [‖], depending upon whether the pitch rises, falls off, or remains level; and by the circumflex [^] or [>^] for subtle pitch changes: rising-falling or falling-rising.

Since juncture ties in very closely, and is coterminous, with intonation, both suprasegmentals share the same symbols, thus:

<table>
<thead>
<tr>
<th>Juncture</th>
<th>Symbol in Common</th>
<th>Intonation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short pause</td>
<td>[‖]</td>
<td>Sustained or level</td>
</tr>
<tr>
<td>Long pause</td>
<td>[↑]</td>
<td>Rising</td>
</tr>
<tr>
<td></td>
<td>[↓]</td>
<td>Falling</td>
</tr>
<tr>
<td></td>
<td>[^]</td>
<td>Rising-falling</td>
</tr>
<tr>
<td></td>
<td>[&gt;^]</td>
<td>Falling-rising</td>
</tr>
</tbody>
</table>
The same example as the one given earlier - expanded or reduced - may be used to illustrate the combined supra-segmental features of juncture, pitch and intonation.

(a) Mapan ka idiay. \[^{2\text{ma}.\text{pan.kəl.dyl}}\] 'Go there.'

(b) Mapan ka. \[^{2\text{ma}.\text{pan.kəq}}\] 'You go.'

(c) Mapan ka... \[^{2\text{ma}.\text{pan.kəq}}\] 'You go...'

(d) Idiay... \[^{2\text{qI}.\text{dyəl}}\] 'To...'

(e) Mapan ka idiay... \[^{2\text{ma}.\text{pan.kəl.dyl}}\] 'You go to...'

(f) Idiay? \[^{1\text{qI}.\text{dyəl}}\] 'Where?'

(g) Idiay. \[^{2\text{qI}.\text{dyəl}}\] 'There.'

(h) Idiay? \[^{2\text{qI}.\text{dyəl} \uparrow \downarrow}\] '(Did you say) There?'

(i) Mapan ka idiay? \[^{2\text{ma}.\text{pan.kəl.dyl}}\] 'You are going there?' or 'You are going where?'

(j) Mapan ka \{kadi \_ ngata\} 46 idiay? \[^{2\text{ma}.\text{pan.kə.kə.kə.dI}.\text{dyəl} \uparrow}\] 'Are you going there?'

(k) Mapan ka idiay? \[^{2\text{ma}.\text{pan.kəl.dyl}}\] 'Are you going there?'

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45 Each pitch phone is to be read as extending up to the next pitch phone, e. g., the pitch phone \[^{2}\] in example (a) extends from \[^{\text{ma}}\] to \[^{\text{kəl}}\]; the pitch shifts to \[^{1}\] in \[^{\text{dyəl}}\].

46 The structure words kadi and ngata \[^{\text{qə}.\text{taq}}\] 'perhaps' signal a question; man \[^{\text{'man}}\], a request.
Tag questions in Ilokano disregard agreement in person, number, gender, and tense. Thus, any of the utterances at the left (below) can mean any of those at the right:

\[
\begin{align*}
\text{Saan kadi?} &= \{ \text{Is it (he, she)?} \\
\text{Di kadi?} &= \text{Isn't it (he, she)?} \\
\text{Saan?} &= \{ \text{Are (aren't) you (they, ...)?} \\
\text{Wen?} &= \text{Do (Did) you (they, ...)?}
\end{align*}
\]

\[
\text{Wen?} = \text{Will (Could) you?}
\]
(s)  ni Juan, ni Rosario, ni Ramon, ken siak.
\[ nI.'\text{hwan} \mid nI.'\text{ro.'sar.ryoq} \mid nI.'\text{rc.'mon} \mid \text{ken.'syak} \] 'John, Rosario, Ramon, and I.'

(t)  Maysa, dwa, tallo, uppat.
\[ mI.'saq \mid dwaq \mid tal.'loq \mid qUp.'pat \] 'One, two, three, four.'

The combined suprasegmental features of pitch, intonation and juncture (PIJ) may be summed up in the following patterns:

<table>
<thead>
<tr>
<th>Communication Situation</th>
<th>PIJ Pattern</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of fact</td>
<td>[21↓]</td>
<td>(a) (g) (r)</td>
</tr>
<tr>
<td>Command</td>
<td>[21↓]</td>
<td>(a) (b)</td>
</tr>
<tr>
<td>Request</td>
<td>[323↑]</td>
<td>(p)</td>
</tr>
<tr>
<td>Hesitation, uncertainty,</td>
<td>[2↓]</td>
<td>(c) (d) (d)</td>
</tr>
<tr>
<td>or interrupted speech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series</td>
<td>[1221↓]</td>
<td>(s) (t)</td>
</tr>
<tr>
<td>or</td>
<td>[2112↑]</td>
<td></td>
</tr>
<tr>
<td>Yes-No questions</td>
<td>[232↓]</td>
<td>(h) (i) (j) (k)</td>
</tr>
<tr>
<td>or</td>
<td>[213↓]</td>
<td></td>
</tr>
<tr>
<td>Echo questions</td>
<td>[23↑]</td>
<td>(f) (i)</td>
</tr>
<tr>
<td>Tag questions</td>
<td>[2123↑]</td>
<td>(l) (m) (n) (o) (q)</td>
</tr>
<tr>
<td>or</td>
<td>[2132↓]</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 4

PHONEMIC ANALYSIS

The phonetic analysis in the preceding chapter has specified the total range of speech sounds or phones - largely the idiophones of the writer - in the cultivated Ilokano dialect of Bayombong, Nueva Vizcaya. A brief inventory of the phones reveals: 9 vocoids, 19 contoids, 12 vocoid chains, 89 contoid clusters, 2 strones, 2 junc tones, 4 pitch phones or tones, and 5 terminal contours, not to mention the potential modifications of segments in context, such, for instance, as those of [l] which may be:

labialized [l^w] as in luag ['l^wag] 'froth'
dentalized [l^n] as in paltat [p ql.'tat] 'catfish'
palatalized [l^x] as in liad ['l^xad] 'lean backward'
velarized [x] as in pilko ['pi^koq] 'bend'

No attempt has, however, been made to account for such extralinguistic factors as rate of speaking, physical and psychological state, and the like, which may be brought to bear upon the actual or potential phonetic differences and variability of the speech sounds. To delve into such phonetic minutiae would yield data too unwieldy to be treated by the present attempt at a scientific description of the sound pattern of Ilokano.
4.1 Rationale for Phonemization

Most linguists concur in the belief that "it is highly unlikely that one ever makes exactly the same group of speech movements twice in a lifetime, and if one does, it is to be attributed to chance rather than to law." Moreover, no phonetic transcription is adequate enough to account for all the fluctuant speech sounds in the repertoire of even one individual speaker.

The phonetic analysis can answer only the question of how speech sounds are realized, but it does not give an account of which or how many of such speech sounds are linguistically relevant in communication. This limitation together with the infinite variability of the phones in a dialect, or more specifically, an idiolect, emphasizes, therefore, the importance of a study of only the relevant and constant speech units. This is the function of "Phonemization," which, according to Malmberg, "implies the reduction of an unlimited number of variants [the phones] to a limited number of invariants [the phonemes]... The smaller the number, the simpler the description, and it is undeniable that in any science, a description which needs a smaller amount of data is superior to one which supposes a larger number, supposed that the description is equally exhaustive... A description which characterizes a linguistic

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system by means of 40 phonemes is consequently, in principle, superior to one which uses 100 or 150."

4.2 Determining the Set of Phonemes

It is the task of this section to answer the following questions: (1) what is linguistically distinctive and relevant, and what is not, among the speech sounds set up on the basis of articulatory phonetics? and (2) how are these distinctive and relevant units to be specified?

4.21 The Phoneme Concept

A point of departure would be a delineation of what is sought for - the phoneme. Linguists have different views on what phonemes are: some regard them as psychological units; others as physical realities; while to still others, they are both psychological and physical realities. The following are a few of the different concepts of the phoneme:

"a family of sounds in a given language which are related in character and are used in such a way that no member ever occurs in a word in the same phonetic context as any other member." -Jones


"a functionally significant unit in the rigidly defined pattern or configuration of sounds peculiar to a language. ... has no singleness of reference." -Sapir

"a minimum unit of distinctive sound feature ... The phonemes of a language are not sounds, but merely features of sounds which the speakers have been trained to produce and recognize in the current of actual speech sound." -Bloomfield

"the phonemes of a language are the elements which stand in contrast with each other in the phonological system of the language. ... a phoneme in a given language is defined only in terms of its differences from the other phonemes of the same language." -Hockett

"a unit, a rubric, a bundle of sound features, or a point of contrast. ... a combination of features of sound (e.g., stop articulation, bilabial position, and voicing in /b/, or high and front tongue position and absence of lip-rounding in /i/) which render one phoneme distinct from another, and which are therefore known as distinctive features." -Hall

"all phonemes denote nothing but mere otherness: ... ... are bundles of concurrent features." -Jakobson and Halle

However varied the views are, at least three pivotal concepts can be derived from them, i.e., a phoneme is a unit representing a class of sounds, it is contrastive, and its occurrence must be worked out within a given language.


52 Ibid., p. 62.


4.22 Analytic Procedure: Pike's Tagmemic Theory

The linguists' concepts of the phoneme are probably as varied as their methods of identifying it. A comparative methodology, together with the theory underlying each method, belongs to the province of the philosophy of language and therefore need not be attempted here.

The present study takes a cue from Pike's tagmemic theory of determining the nature of a unit of relevant human behavior, such as linguistic behavior.

"Any unit of purposive human behavior," Pike says, "is well-defined if and only if one describes it in reference to (a) contrast (and resulting identification), (b) range of variation (with its essential physical manifestation), and (c) distribution (in class, in hierarchical sequence, and in systemic matrix)."

The trimodal theory of analysis given above may be stated briefly, thus:

\[
\text{Contrast} \quad \text{Unit} = \text{Variation} \quad \text{Distribution.}
\]


57 See also, Kenneth L. Pike, Language in Relation to
Pike further characterizes the three components of analysis as follows:

"Contrast: One does not know what an item is until one knows what it is not. ... Once items are thus separated off from others, the contrastive features in further environments sometimes allow for identification of items even under conditions where one of two members of a contrast does not occur.

Variation: The manifestation - or realization - of the unit could vary substantially, leading to etic variants, or allounits.

Distribution: A well-defined unit is a member of a class of units appropriate to a particular slot in a construction."

At the phonemic level of analysis in this study, the specific unit is, of course, the phoneme. The phonemes of the Ilokano dialect under investigation will be determined using the formula:

\[ C_U = V_D \]

---


where:

\[ U = \text{emic Unit} \] (the phoneme)

\[ C = \text{Contrast} \] (What the phoneme is or, more important, what it is not in relation to other phonemes in the language.)

\[ V = \text{Variation} \] (What are its various manifestations or allophones?)

\[ D = \text{Distribution} \] (Where does each allophone actually or potentially occur?)

It was mentioned elsewhere that this study employs the taxonomic procedure of segmentation and classification. In any classificatory science, certain features or items are taken into account, and others are subsumed, or in some cases, are eventually disregarded. This is the principle of classification. In the process of phonemization, the writer - confronted with a variety of etic units - assumes a phonemic norm, and relegates the other units to the status of variants or allophones. Thus, by the criterion of phonetic similarity, she assumes /i/, /e/, /a/, /o/, and /u/ as the phonemic norms for the nine etic segments, [i, I], [e, ø], [a, α], [ɔ], and [u, ʊ], respectively; and /h/ as that for [h] and [h].

\[ 59 \] For details about phonemic norm, see Pike, *Phonemics*, pp. 62, 88, 244.

\[ 60 \] Allophones will be discussed further under Variation and Distribution, Section 4.222 of this thesis.
tentative phonemes - i.e., the phonemic norms together with the other segments and suprasegments - are then established as emic units of the Ilokano dialect using the trimodal scheme,

\[
\text{Contrast} \\
\text{Unit} = \text{Variation} \\
\text{Distribution}
\]

4.221 CONTRAST

Contrast, as already pointed out, involves statements about identificational features, i.e., what the emic unit is, e.g., "/t/ is a voiceless dental stop." Since statements of this type have been provided in the phonetic analysis, the phonemic analysis is more concerned about finding what the emic unit is not, e.g., that /o/ is not /u/. Thus, emphasis is placed on oppositions or contrasts which will be determined on the basis of the contrastive features or components - also known as distinctive features - of each phoneme. In fact,

61 Chapter 3.
62

It will be noted that the feature approach adopted in this study utilizes articulatory features; and not those involving articulatory-acoustic correlates, known as the Jakobsonian distinctive features (Jakobson, Fant and Halle, Preliminaries, 1965). To avoid confusion, therefore, the term components - rather than distinctive features - will henceforth be used.
Hockett says:

The sole function of sound in language is to keep utterances apart. The phonological system of a language is therefore not so much a "set of sounds" as it is a network of differences between sounds... the elements of a phonological system cannot be defined positively in terms of what they "are", but only negatively in terms of what they are not, what they contrast with.

What, for instance, makes for the differences between the following utterances?

Umay tanto kitaen. /qu máy tan to ki tąż qen/  
'We'll come and see it.'

Umay danto kitaen. /qu máy dan to ki tąż qen/  
'They'll come and see it.'

Umay kanto kitaen. /qu máy kan to ki tąż qen/  
'I'll come and see you.'

Umay santo kitaen. /qu máy san to ki tąż qen/  
'He'll come, and then we'll see it.'

The schematic diagram on the next page may be an oversimplification, but it serves to illustrate principles and procedures, i.e., that a tentative phoneme, say /t/, derives its function, and hence its identity as a phoneme in the Ilokano dialect, from being in contrast in one or more features with other phonemes in the dialect: e.g., with /d/ in voicing, with /k/ in point of articulation, and with /s/ in both

---

point and manner of articulation. The following componential analysis shows the contrastive relationships:

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>/t/</th>
<th>/d/</th>
<th>/k/</th>
<th>/s/</th>
</tr>
</thead>
</table>

**Dimensions of Contrast**

- **Voicing**: [breath] -vs- [voice]
- **Point of Art.**: [dental] -vs- [velar] -vs- [alveolar]
- **Manner of Art.**: [stop] -vs- [fricative]

Viewed in this light, a phoneme - such as /t/ - is a point in a network of functional contrasts in the phonological system of Ilokano, thus:

```
| p -- t -- k |
| s    | d |
```

In its passage from phone to phoneme through contrast, each tentative phoneme is subjected to a **commutation test** - a test which involves the contrastive substituting of sounds in order to identify or reify them as phonemes. The devices used for such a test include the following:

1. **Minimal pairs**: A minimal pair is a set of two words the substitution, addition, or subtraction of one segment of which makes for a difference in meaning, e.g., /mi/ /miq/ 'our' vs /mo/ /moq/ 'your';
(2) **Minimal triplets** (also quadruplet or quintuplet): involving differences in three items, e.g., ni /niq/ 'the (prenominal)' vs na /naq/ 'his, her, its' vs no /noq/ 'if', possibly, vs the expression ne /neq/ 'here it is;'

(3) **Subminimal pairs**: two items so differing in similar (not identical, as in the case of minimal pairs) environments. For example, the subminimal pair, viahe /vyə heq/ 'travel' vs biala /byə laq/ 'a kind of fish', can reify /v/ and /b/ as separate phonemes in the Ilokano dialect.

### 4.211 Vowels

Another componential analysis will reveal that Ilokano vowel phonemes differ in either or both of the dimensions of contrast: tongue height and tongue advancement. Since all the vowels are normal vowels, it follows that lip position is automatic, non-distinctive in Ilokano, and therefore need not be included as one of the dimensions of contrast.

Examples:

- ta /taq/ 'we' vs ti /tiq/ 'the' vs to /toq/ 'later'

Componential analysis:

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>/i/</th>
<th>/a/</th>
<th>/o/</th>
</tr>
</thead>
</table>

**Dimensions of Contrast**

<table>
<thead>
<tr>
<th></th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongue ht.</td>
<td>close -vs- open -vs- half-open</td>
</tr>
<tr>
<td>Tongue adv.</td>
<td>front -vs- back</td>
</tr>
<tr>
<td>(Lip pos.)</td>
<td>(spread) -vs- (rounded)</td>
</tr>
</tbody>
</table>
Historically, the Ilokano vowel system involved a three-way contrast in tongue height:

- Close /i/ vs /u/
- Half-open /æ/ vs /æ/
- Open /a/ vs /a/

and a three-way contrast in tongue advancement:

- Front /i/ vs /æ/ vs /u/
- Central /a/ vs /u/

hence, the vowel pattern:

```
/ı/ ────── /æ/ ────── /u/ ────── /a/
```

It is assumed in this thesis (Sec. 1.6) that a borrowed sound is assimilated into the native phonemic system
when the loan is in common use by native speakers of the language. Thus, with the influx into the Ilokano lexicon of quite a number of foreign words – mostly Spanish – which are currently used by the native speakers, the phonemes /e/ and /o/ have become assimilated into the Ilokano phonemic code.

The list below gives only a limited sampling of the vast number of Spanish loans in the Ilokano dialect:

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Ilokano</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>asenso</td>
<td>/qa sèn soq/</td>
<td>'promotion'</td>
</tr>
<tr>
<td>bolero</td>
<td>/bo lé roq/</td>
<td>'a short jacket'</td>
</tr>
<tr>
<td>dosena</td>
<td>/do sé naq/</td>
<td>'dozen'</td>
</tr>
<tr>
<td>espeho</td>
<td>/qes pè hoq/</td>
<td>'mirror'</td>
</tr>
<tr>
<td>fresko</td>
<td>/frès koq/</td>
<td>'fresh'</td>
</tr>
<tr>
<td>Guerrero</td>
<td>/ger ré roq/</td>
<td>'a family name'</td>
</tr>
<tr>
<td>José</td>
<td>/ho séq/</td>
<td>'Joseph'</td>
</tr>
<tr>
<td>huego</td>
<td>/hwè goq/</td>
<td>'game, gambling'</td>
</tr>
<tr>
<td>Isabelo</td>
<td>/qi sa bé loq/</td>
<td>'a boy's name'</td>
</tr>
<tr>
<td>koreo</td>
<td>/kô re yoq/</td>
<td>'mail, letter'</td>
</tr>
<tr>
<td>Leon</td>
<td>/le yôn/</td>
<td>'a boy's name'</td>
</tr>
<tr>
<td>melon</td>
<td>/me lôn/</td>
<td>'cantaloupe'</td>
</tr>
<tr>
<td>Noviembre</td>
<td>/no vyêm breq/</td>
<td>'November'</td>
</tr>
<tr>
<td>onse</td>
<td>/qôn seq/</td>
<td>'eleven'</td>
</tr>
<tr>
<td>pareho</td>
<td>/pa ré hoq/</td>
<td>'the same, similar'</td>
</tr>
<tr>
<td>relo</td>
<td>/re lôq/</td>
<td>'clock, time piece'</td>
</tr>
<tr>
<td>Soledad</td>
<td>/so le dâd/</td>
<td>'a girl's name'</td>
</tr>
</tbody>
</table>
Interestingly enough, probably for social and psychological reasons - Spanish being considered as a "prestige language" by many Filipinos - the /e/ even gradually replaced the native tense schwa, /ə/, relegating the latter to the status of an allophone; at least a free variant, of /e/. For example, many Ilokano generally pronounce the orthographic e as /e/ instead of /ə/ in such native Ilokano words as:

- **buteng** /bu ˈtɛŋ/ < [bʊˈtɛŋ] 'fear'
- **emma** /qem ˈmɑŋ/ < [qemˈmɑŋ] 'meekness'
- **kettelen** /ket teˈlɛn/ [kɛt.ˈtɛ.ˈlɛn] 'to pluck (flowers; etc.)'

Obviously, the superstratum influence reshaped the indigenous Ilokano vowel pattern (see page 147) into:

![Ilokano Vowel Pattern](image)

**Fig. 10** Ilokano Vowel Pattern
The following commutation tests for contrasts serve to identify and reify the vowel phonemes shown in Figure 10:

4.22ll (a) Contrasts in all dimensions -

- **ili** /qǐ liq/ 'town'
- **Eli** /qē liq/ 'a nickname'
- **ali** /qā liq/ 'stain'
- **oli** /qō liq/ 'vinyl'
- **uli** /qū liq/ 'ascent'

- **bilang** /bī laq/ 'number'
- **Belo** /bē loq/ 'a boy's nickname'
- **bala** /bā laq/ 'bullet'
- **bola** /bō laq/ 'ball'
- **bulo** /bū loq/ 'a variety of bamboo'

- **dildil** /dīl dīl/ 'lick, lap'
- **deldel** /del dēl/ 'smear'
- **daldal** /dal dāl/ 'prattle'
- **dollar** /dol lyār/ 'dollar'
- **duldol** /dul dōl/ 'insistence'
4.2211 (b) Contrasts in tongue height -

/1/

/e/

inna /qin nāq/ 'mothers' vs enna /qen nāq/ 'salt water'
siko /sī koq/ 'elbow' vs seko /sē koq/ 'dry'
silo /sī lōq/ 'lasso' vs Celo /sē lōq/ 'a boy's nickname'

il-il /qīl qīl/ 'whimper' vs el-el /qēl qēl/ 'groove, line'
silva /sīl lyaq/ 'chair' vs selyo /sēl lyoq/ 'stamp, seal'
simsim /sim sim/ 'taste' vs semsem /sem sēm/ 'annoyance'

/u/

/o/

kura /ku! raq/ 'clergy' vs Cora /ko raq/ 'a girl's nickname'
pulo /pū loq/ 'ten' vs polo /pō loq/ 'polo shirt'
puso /pū soq/ 'heart' vs poso /pō soq/ 'artesian well'
tudo /tū doq/ 'rain' vs todo /tō doq/ 'all'
tuyo /tū yōq/ 'rice bran' vs toyo /tō yōq/ 'soy sauce'

gumi /gū miq/ 'cotton ball' vs goma /gō maq/ 'rubber'
lumut /lu mut/ 'moss' vs lomo /lō moq/ 'loin'
luto /lu toq/ 'cooking' vs lote /lō teq/ 'lot, lant'
uray /qū ray/ 'wait' vs oras /qō ras/ 'hour, time'
yuyem /yū yem/ 'cloudy' vs yoyo /yō yōq/ 'yoyo (a toy)'
el-el /qel qēl/ 'groove, line' vs al-al /qal qāl/ 'panting'
ispel /qis pēl/ 'obstruction in the throat' vs ispel
/qis pāl/ 'defense'
Peggy /pē giq/ 'a girl's name' vs pagi /pā giq/ 'ray fish'
pekpek /pek pēk/ 'fully stuffed' vs pakpak /pak pāk/ 'a kind of rattle'
sepsep /sep sēp/ 'gnat' vs sapsap /sap sāp/ 'a kind of fish'
apo /qā poq/ 'lord' vs apa /qā paq/ 'quarrel'
aso /qā soq/ 'dog' vs asa /qā saq/ 'whet, hone'
asok /qā sōk/ 'smoke' vs asak /qā sāk/ 'pass through thickets'
baro /ba rōq/ 'young man' vs bara /ba rāq/ 'lungs'
no /nōq/ 'if' vs na /nāq/ 'his, her, its'
Pio /pyōq/ 'Pius' vs pia /pyāq/ 'health'
siko /sī koq/ 'elbow' vs sika /sī kaq/ 'dysentery'
to /toq/ 'later' vs ta /taq/ 'our, we'
oras /qō ras/ 'time, hour' vs aras /qā ras/ 'mouth disease of children'
Contrasts in tongue advancement —

/1/ ————/u/

adi /qa dɪq/ 'refusal, dislike' vs adu /qa dʊq/ 'many'
ilo /qi loq/ 'toilet paper' vs ulo /qʊ loq/ 'head'
ilog /qɪ log/ 'creek' vs ulog /qʊ log/ 'descent'
ima /qɪ maq/ 'hand' vs uma /qʊ maq/ 'impatience; surfeit'
init /qɪ nit/ 'sun' vs inut /qɪ nut/ 'a little at a time'
itang /qɪ taq/ 'a kind of fern' vs utang /qʊ taq/ 'debt'
pidit /pɪ dit/ 'earlobe' vs pidut /pɪ dut/ 'a thing picked up'
sika /sɪ kɑq/ 'you' vs suke /sʊ kɑq/ 'vinegar'
timid /tɪ mid/ 'chin' vs timud /tɪ mud/ 'heed'

/e/ ————/o/

dies /dɪɛs/ 'dime' vs Dios /dɪʊs/ 'God'
kotye /kɔt tyeq/ 'car' vs kotyo /kɔt tyoq/ 'slipper shoe'
Remy /rɛ miq/ 'a girl's name' vs Romy /rʊ miq/ 'a boy's name'
saem /sə qɛm/ 'intense pain' vs saom /sʊ qɛm/ 'your word'
seda /sɛ daq/ 'silk' vs soda /sʊ daq/ 'soda'
tuleng /tʊ leq/ 'deaf' vs tulong /tʊ loq/ 'help'

The front-versus-back contrast does not occur at the lowest level in the Ilokano vowel pattern.
Earlier in this chapter, it was schematically shown that just like the vowels, each Ilokano consonant phoneme is a bundle of phonological components or distinctive features; that consonants contrast with each other in two main dimensions: point of articulation and manner of articulation; that voicing is a third dimension of contrast among stops and fricatives; and that by at least one of its components, a consonant is set off from every other consonant in the system.

With a view to establishing the entire consonant pattern of Ilokano, the subsequent discussions will further identify each of the phonemes as a point of reference in an interlocking network of contrasts.

One technique for establishing the phonemes is to group them into series or bundles in which one phonological feature is kept constant, and others, variable. A parallel series of oppositions or contrasts based on the same feature is called correlation.

4.2212 (a) Voice versus Breath

Ilokano has a correlation of voice between some stops and fricatives - /p t k f/ vs /b d g v/ - thus:
The following minimal pairs will establish the functional contrast or correlation of voice:

\[
\begin{array}{c}
\text{Stop} \\
\text{Fric}
\end{array}
\]

The dimension of contrast under consideration is indicated by means of heavy lines; the broken lines merely show positional relationships between phonemes in the total phoneme pattern that is to be evolved.
patay /pa tāy/ 'death' vs batay /ba tāy/ 'step ladder'
puot /pu qōt/ 'awareness' vs buot /bu qōt/ 'mildew'
sirip /si rip/ 'peek' vs sirib /si rib/ 'wisdom'
taep /ta qēp/ 'rice chaff or hull' vs taeb /ta qēb/ 'contemporary'

/t/

/baket /ba kēt/ 'old woman' vs baked /ba kēd/ 'brawn'
batang /ba tāŋ/ 'one's turn' vs badang /ba dāŋ/ 'large bolo'
bayat /ba yāt/ 'duration' vs bayad /bā yād/ 'payment'
bukot /bū kot/ 'back' vs bukd /bū kod/ 'by or for oneself'
igat /qi gat/ 'eel' vs igad /qi gad/ 'grater'
ita /qi tāq/ 'now' vs ida /qi dāq/ 'them'
iti /qi tīq/ 'the' vs idi /qi dīq/ 'before'
pilit /pī lit/ 'insistence' vs pilid /pī lid/ 'wheel'
silet /si lēt/ 'small intestines' vs siled /si lēd/ 'room'
ta /tāq/ 'we (dual)' vs da /dāq/ 'they'
tawa /tā waq/ 'window' vs dawa /dā waq/ 'fruit of rice plant'
tukot /tū kot/ 'bottom' vs tukod /tū kod/ 'fathom, measure'
teppel /tep pēl/ 'restraint' vs deppel /dep pēl/ 'thumbmark'
batok /bátok/ 'dive' vs batog /bátog/ 'row'  
bennek /ben nek/ 'mollusk' vs benneg /ben neg/ 'aisle'  
bettek /bet ték/ 'a bundle of rice' vs bettek /bet teg/ 'distinction'  
kapas /ká pas/ 'cotton' vs gapas /gá pas/ 'harvest'  
kawat /ká wat/ 'anchor' vs gawat /gá wat/ 'famine'  
kita /ki taq/ 'kind, class' vs kita /gi taq/ 'venom'  
kunnot /kun nöt/ 'suck' vs gunnot /gun nöt/ 'fibrous tissue'  
kura /kú raq/ 'clergy' vs gura /gú raq/ 'hatred'  
kurikor /ku ri kor/ 'earpick' vs gurigor /gu ri gor/ 'fever'  
narukit /na ru kit/ 'cultivated' vs narugit /naru git/ 'dirty'  
sukat /sú kat/ 'measurement' vs sugat /sú gat/ 'wound'  
taktak /tak ták/ 'delay' vs tagtag /tag tág/ 'shake'  

falda /fál daq/ 'skirt' vs Valda (pastillas de) /val daq/ 'tablets for sore throat'  
fino /fi noq/ 'fine' vs vino /vi noq/ 'wine'  
Cleofe /klyš feq/ 'a girl's name' vs liave /lyá veq/ 'key'
4.2212 (b) Contrasts in Point of Articulation

Along this dimension, Ilokano has in its stops a four-way - although not over-all - contrast involving bilabial-dental-velar-glottal position. The stops and nasals exhibit a labial-dental-velar bundle of correlations, thus:

\[
\begin{array}{cccc}
p & t & k & q \\
\| & | & | & |
\end{array}
\]

\[
\begin{array}{cccc}
b & d & g \\
\| & | & |
\end{array}
\]

\[
\begin{array}{cccc}
m & n & q \\
\| & | & |
\end{array}
\]

In the semiconsonants, there is of course a two-way contrast - bilabial and alveolar:

\[
\begin{array}{cc}
w & y \\
\| & |
\end{array}
\]
There is a three-way contrast between breath fricatives, i.e., labiodental-alveolar-velar. The fricatives introduce a dioramic pattern of contrastive relationships or correlation with the stops, thus:

```
  p   t   k   q
 /\   /\   /\  
 f   s   h
 |   |   |
 b   d   g
 |   |   |
  v   n   j
 |   |   |
 w   y
```

Unlike the vowels, the consonants do not lend themselves to formulation in overly neat symmetrical pattern. For example, the lack of parallel opposition between /q/ and a fricative or a voiced correlate leaves

The "diagonal correlations" in point of articulation between stops and fricatives - /p t k b/ vs /f s h v/ - are also the correlates in "manner". To avoid duplication, the correlations will be exemplified under the latter category.
a linguistic hole or case vide in the Ilokano consonant system. This phenomenon can be considered a linguistic universal, for, as Edward Sapir said, no language forms a water tight system, and we should be suspicious if too pretty a picture results from the phonemic analysis of a phonetically assymetrical situation.

Adopting the term in sociometrics, the glottal stop, /q/, may be considered an "isolate" in the whole pattern, i. e., it contrasts with only one phoneme, /k/. To fully establish its identity, it will be contrasted with all the other breath stops - /p t k/ vs /q/.

The use of minimal triplets, minimal pairs and subminimal pairs will establish correlations along the point-dimension of contrast, thus:

\[ /p/ \quad /t/ \quad /k/ \]

pay /pây/ 'yet, still' vs tay /tây/ 'the; we' vs kay /kây/ 'you'
sapsap /sap sáp/ 'a kind of fish' vs sat sat /sat sätt/ 'rip (clothes) vs saksak /sak sâk/ 'stab'
sipsipan /sip sip pan/ 'to sip' vs sitsitan /sit sip tan/ 'to drain' vs siksikan /sik sip kan/ 'to remove the scales of a fish'
/b/-/d/-/g/
sabsab /sab sâb/ 'voracious eating' vs sadsad /sad sâd/ 'aground' vs sagsag /sag sâg/ 'ruined'
bawbaw /baw bâw/ 'topless, roofless' vs dawdaw /daw dâw/ 'extended part' vs gawgaw /gaw gâw/ 'starch'
/m/-/n/-/ŋ/
imama /qi ma maq/ 'to chew something with betel nut' vs
inana /qi na nâq/ 'rest' vs inganga /qi qa qa q/ 'to open the mouth'
semsem /sem sêm/ 'annoyance' vs sensen /sen sên/ 'compress'
vs senseng /seq sêq/ 'stuff'
/p/-/t/
pelpel /pel pêl/ 'stuffed mouth' vs teltel /tel teî/ 'nape'
pulong /pû loq/ 'assembly' vs tulong /tû loq/ 'help'
purong /pu rôq/ 'a kind of fish' vs turong /tu rôq/ 'trend'
putot /pû tot/ 'progeny' vs tutot /tû tot/ 'resin, sap'
rikep /ri kép/ 'shutter' vs riket /ri kêt/ 'difficulty'
/t/-/k/
aryet /qar yêt/ 'ascaris' vs aryek /qar yêk/ 'tickle'
ta /tâq/ 'we, the two of us' vs ka /kâq/ 'you'
tabo /tå boq/ 'dipper' vs kabo /kå boq/ 'corporal'
tali /ta liq/ 'rope' vs kali /ka liq/ 'hawk'
tapa /tå paq/ 'dried meat' vs kapa /kå paq/ 'cape'

/k/ → /q/
amak /qa mák/ 'my father' vs ama /qa máq/ 'father'
baket /ba két/ 'old woman' vs baet /ba qét/ 'between'
bukot /bú kot/ 'back' vs buot /bú qot/ 'mildew, mold'
kilo /ki loq/ 'kilogram' vs llo /qi loq/ 'toilet paper'
kapa /kå paq/ 'cape' vs apa /qå paq/ 'wafer'
tako /tå koq/ 'dipper' vs tao /tå qoq/ 'person'

/t/ → /q/
bato /ba tōq/ 'stone' vs bao /ba qōq/ 'rat'
rangtay /raq tāy/ 'bridge' vs rang-ay /raq qāy/ 'progress'
sangit /sā qiṭ/ 'cry' vs sangi /sā qiq/ 'molars'
tasa /tå saq/ 'cup' vs asa /qå saq/ 'hone, whet'
tayab /ta yāb/ 'flight' vs ayab /qa yāb/ 'call'
tidda /tid dāq/ 'remainder' vs idda /qid dāq/ 'bed'
tubo /tū boq/ 'sprout, shoot' vs ubo /qū boq/ 'leak'

/p/ → /q/
paypay /pay pāy/ 'fan' vs ay-ay /qay qāy/ 'pity'
sapad /sā pad/ 'bunch of bananas' vs saad /sā qad/ 'status'
sapo /sa póq/ 'ointment' vs sao /sa qōq/ 'word'
/s/ —— /h/

asi /qá siq/ 'compassion' vs ahit /qá hit/ 'shave'
Lisa /lì saq/ 'a girl's name' vs liha /lì haq/ 'sandpaper'
mason /ma són/ 'mason' vs mohon /mo hón/ 'landmark'
rasa /rá saq/ 'race of man' vs raha /rá haq/ 'chieftain'
Sues /swès/ 'Suez Canal' vs hues /hwés/ 'judge'

/b/ —— /d/

bagas /ba gás/ 'rice' vs dagas /da gás/ 'stopover'
banag /bá nag/ 'outcome' vs danag /dá nag/ 'worry'
bara /bá raq/ 'heat' vs dara /dá raq/ 'blood'
bua /bwáq/ 'areca nut' vs dua /dwáq/ 'two'
kurab /kù rab/ 'a big bite' vs kurad /kù rad/ 'ringworm'

/d/ —— /g/

adal /qá dal/ 'learning' vs egal /qá gal/ 'complaint'
alinedned /qa lì ned néd/ 'utter darkness' vs alinegneg
/qá lì neg nég/ 'depths'
bangad /bə ˈɡad/ 'stubborn' vs bangag /bə ˈɡag/ 'low pitched'
beted /bet ˈtɛd/ 'cramps' vs beteg /bet ˈtɛg/ 'distinct'
dapo /da ˈpɔd/ 'ashes' vs gapo /ga ˈpɔd/ 'reason; cause'
dita /di ˈtəd/ 'there' vs gita /gi ˈtəd/ 'oily taste of nuts'
tulad /ˈtu ˈlad/ 'imitate' vs tulag /ˈtu ˈlag/ 'agreement'
turod /ˈtu ˈrod/ 'hill' vs turog /ˈtu ˈrog/ 'sleep'
udaod /ˈu daʊd/ 'bow (violin)' vs ugaog /ˈu ɡəʊd/ 'weeping'

umadaw /ˈu mədəw/ 'to borrow fire from a neighbor' vs umagaw /ˈu mə gəw/ 'to snatch away'

/among /qam ˈmɔŋ/ 'pile, heap' vs annong /qan ˈnɔŋ/ 'burden'
amag /ˈdɑ mag/ 'mold, mildew' vs anag /ˈdɑ nag/ 'implication'
ayam /qa ˈyam/ 'chicken tick' vs ayan /qa ˈyan/ 'place'
damag /da ˈmæg/ 'news' vs danag /da ˈnəg/ 'worry'
manang /ˈma naŋ/ 'sister' vs nanang /ˈnɑ naŋ/ 'mother'
matay /ma ˈtɛj/ 'will die' vs natay /na ˈtɛj/ 'died'
mo /mɔ ˈmɔ/ 'your' vs no /nɔ ˈnɔ/ 'if'

/bulan /ˈbu lan/ 'moon' vs bulang /ˈbu ˈlæŋ/ 'cockfighting'
na /ˈnɑ/ 'his, her, its, vs nga /ˈɲə/ 'a ligature'

/na /ˈnɛŋ/ 'rainy days' vs ngep /ˈnɛp ɲɛp/ 'darkness'
tunaw /ˈtu naw/ 'dissolve' vs tungaw /ˈtu ɡəw/ 'itch bug'
Ilokano has a six-way contrast in this dimension, thus:

<table>
<thead>
<tr>
<th>Stops</th>
<th>p -------- t -------- k -------- q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f--------s--------h</td>
</tr>
<tr>
<td>Fricatives</td>
<td>b--------d--------g</td>
</tr>
<tr>
<td>Nasals</td>
<td>m--------n--------ŋ</td>
</tr>
<tr>
<td>Lateral</td>
<td>l</td>
</tr>
<tr>
<td>Flap</td>
<td>r</td>
</tr>
<tr>
<td>Semivowels</td>
<td>w--------y</td>
</tr>
</tbody>
</table>
Two aspects of the pattern should be noted. First, two potential distinctions in the voiced fricative series are not utilized, since Ilokano lacks the dental and velar voiced fricatives, /z/ and */ç/*, respectively. Secondly, there are two sets of correlation, i.e., the stop-fricative correlation, /p t k b/ vs /f s h v/, and the stop-nasal correlation, /b d g/ vs /m n η/.

The following list of minimal pairs, minimal triplets, and subminimal pairs will further establish the emic status of the consonants:

\[
\begin{align*}
/p/ \\
/f/
\end{align*}
\]

\[
\begin{align*}
\text{piano} /pyə noq/ & \quad \text{'piano'} \ vs \ \text{flansa} /fyan saq/ \quad \text{'bail'} \\
\text{puerta} /pwer taq/ & \quad \text{'entrance'} \ vs \ \text{fuerte} /fwer teq/ \quad \text{'strong'} \\
\text{piko} /pi koq/ & \quad \text{'pick ax'} \ vs \ \text{fiho} /fi hoq/ \quad \text{'sure, certain'} \\
\text{pili} /pi liq/ & \quad \text{'choice'} \ vs \ \text{fila} /fi laq/ \quad \text{'file, line'} \\
\text{priso} /pri soq/ & \quad \text{'prisoner'} \ vs \ \text{frito} /fri toq/ \quad \text{'fried'} \\
\text{punto} /pun toq/ & \quad \text{'intonation, twang'} \ vs \ \text{fundo} /fün doq/ \quad \text{'fund'}
\end{align*}
\]
bata /bá taq/ 'bathrobe' vs basa /bá saq/ 'read'
kutit /kú tit/ 'rump' vs kusit /kú sit/ 'deceit'
tara /tá raq/ 'an aromatic plant' vs sara /sá raq/ 'antler'
tanga /ta ṣaq/ 'stupid' vs sanga /sa ṣaq/ 'branch'
tata /tá taq/ 'uncle' vs tasa /tá saq/ 'cup'
tawar /tá war/ 'bargain' vs sawar /sá war/ 'search'

/k/

/h/

kaka /ká kaq/ 'elder sibling' vs kaha /ká haq/ 'box, case'
Kiko /ki koq/ 'a boy's name' vs iho /qi hoq/ 'son'
kola /ko laq/ 'paste' vs holen /ho len/ 'marbles (toy)'
kuetes /kwé tes/ 'fireworks' vs hueteng /hwé teq/ 'raffle'
piko /pi koq/ 'pick ax' vs fiho /fi hoq/ 'certain, sure'
pikon /pi kon/ 'fold' vs bihon /bi hon/ 'rice sticks'

/b/

/v/

bara /bá raq/ 'heat' vs vara /vá raq/ 'a variable unit of length, about 2.8 feet'
bienes /byé nes/ 'real estate property' vs Viernes /vyér nes/ 'Friday'
bisil /bí sil/ 'gravel' vs vista /vis taq/ 'view'
agob /-gap-əb/ 'smell of old rice' vs agom /gap-əm/ 'covet'
ayab /gap-əy-əb/ 'call' vs ayam /gap-əy-əm/ 'chicken tick'
balo /ba-lo/ 'widow(er)' vs malo /ma-lo/ 'wooden club'
batay /ba-ta-y/ 'support' vs matay /ma-ta-y/ 'to die'
bayo /ba-yo/ 'pounding' vs Mayo /ma-yo/ 'May'
buyot /bu-yot/ 'troops' vs muyot /mu-yot/ 'craze'
berber /ber-bər/ 'draft' vs mermer /mer-mər/ 'dust shower'
labes /la-bes/ 'beyond' vs lames /la-məs/ 'fish'

agadi /gap-ədi/ 'two consecutive siblings' vs agani /gap-ən-i/ 'harvester'
da /da/ 'they, their' vs na /nə/ 'his, her, its'
indayon /qin-da-yon/ 'swing' vs innayon /qin-nə-yon/ 'added to'

agot /gap-ət/ 'ointment' vs angot /gap-əŋ-t/ 'smell'
biag /byəg/ 'life' vs biang /byəŋ/ 'care, concern'
bulog /bu lög/ 'uncastrated male animal' vs bulong /bu lön/ 'leaf'

gergər /ger ger/ 'grooved line' vs ngernger /ŋer ŋer/ 'snarl'
kulugen /ku lu ģen/ 'to shake' vs kulungen /ku lu ŋen/ 'to fence in'

/m/

/w/

ama /qā maq/ 'my father' vs awa /qā waq/ 'a large milk fish'
ameng /qā meŋ/ 'miser' vs aweng /qā weŋ/ 'resonance'
ima /qi maq/ 'hand' vs iwa /qi waq/ 'slice'
kammet /kam mét/ 'a handful' vs kawwet /kaw wēt/ 'cockspur'

/n/

/l/

agnisnis /qag nis nis/ 'to wipe with a rag' vs aglislis /qag lis lis/ 'to tuck up one's sleeves or skirt'
agnutnot /qag nut nôt/ 'to thumbsuck' vs aglutlot /qag lut lôt/ 'to become muddy'
nana /nā naq/ 'pus' vs lana /lā naq/ 'oil'
nawnawen /naw nā wen/ 'to dissolve' vs lawlawen /law lá wen/ 'to surround'
niwniw /niw niw/ 'vertigo' vs liwliw /liw liw/ 'fishing rod'
nunsnungan /nuŋ nu yan/ 'to favor' vs lunglungan
/luŋ lu yan/ 'kitchen utensils'

labong /la bɔŋ/ 'loose' vs rabong /ra bɔŋ/ 'bamboo shoot'
laem /la qem/ 'house proper' vs raem /ra qem/ 'respect'
lames /la məs/ 'fish' vs rames /ra məs/ 'disrespect'
lasi /la sɨq/ 'dandruff' vs rasi /ra sɨq/ 'quality of
being fragile'
liali /li ya liq/ 'sway' vs riari /ri ya riq/ 'male cicada'
nalaylay /na lay láy/ 'wilted' vs narayray /na ray rāy/
'brenning, sparkling'
sala /sə laq/ 'dance' vs sara /sə raq/ 'horns'

ragrag /rag rāq/ 'ruin' vs yagyag /yag yāq/ 'insult'
reprep /rep rep/ 'crowd' vs yepyep /yep yēp/ 'quiet'
rukurok /ru kʉ rok/ 'erosion' vs yukuyok /yu kʉ yok/
'sieve'
wara /wa rāq/ 'litter' vs waya /wa yāq/ 'spare time'
Fig. 11. Ilokano Consonant Pattern
(A Summary)
4.2213 Suprasegmental Prosodemes

The possibilities of overlapping or interlocking of suprasegmental features are unlimited. However, just as in the case of the etic analysis (Sec. 3.3), the features are here treated individually in order to establish - or not establish - their identity as prosodemes.

From the welter of etic data, the writer assumes the following features as emic norms to be established as separate prosodemes through contrast:

<table>
<thead>
<tr>
<th>Dimensions of Contrast</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Stress (x = syllable)</td>
<td>/x'x/ vs /'xx/</td>
</tr>
<tr>
<td>B. Length: Vowel</td>
<td>/V/ vs /V:/</td>
</tr>
<tr>
<td>Consonant</td>
<td>/C/ vs /CC/</td>
</tr>
<tr>
<td>C. Pitch, Intonation</td>
<td>/1/ vs /3/</td>
</tr>
<tr>
<td>and Juncture (PIJ)</td>
<td>/2/ vs /3/</td>
</tr>
<tr>
<td></td>
<td>/3/ vs /4/</td>
</tr>
<tr>
<td></td>
<td>/2/ vs /1/</td>
</tr>
<tr>
<td></td>
<td>/\ vs /\</td>
</tr>
<tr>
<td></td>
<td>/\ vs {/}</td>
</tr>
</tbody>
</table>
4.2213 (a) Stress

On pages 127 and 128 of this thesis is a summary of the etic stress patterns of Ilokano. The present analysis is concerned not about such patterns per se, but whether or not stress is an emic unit at all in the language. Once the emic stress or stroneme is established, the stroneme patterns can likewise be established - this is the domain of Sec. 4.222, Variation and Distribution. Thus, only the two-way contrast of stress - i.e., weak (unmarked) versus strong ('') - will be considered here.

That Ilokano has a weak-strong contrast in stress is evidenced by the following minimal pairs:

- agraman /qag râ man/ 'including' vs /qag ra mân/ 'to taste'
- anayen /qa nâ yen/ 'to be consumed by termites' vs /qa nâyên/ 'to make complete or sufficient'
- ayam /qâ yam/ 'play, game' vs /qa yâm/ 'chicken tick'
- bawang /bâ waŋ/ 'garlic' vs /ba waŋ/ 'ravine'
- data /dâ taq/ 'supine position' vs /da tâq/ 'the two of us'
- daya /dâ yaq/ 'east' vs /da yâq/ 'gathering'
- itaya /qi tâ yaq/ 'to receive' vs /qi ta yâq/ 'to bet'
- kali /kâ liq/ 'ditch' vs /ka liq/ 'hawk'
- kayo /kâ yoq/ 'tree' vs /ka yoq/ 'you (plural)'
- pilaw /pi law/ 'blemish' vs /pi làw/ 'pool of stagnant water'
- sanga /sâ yaq/ 'larva of clothes moth' vs /sa yâq/ 'branch'
suso /sù sòq/ 'breast' vs /su sòq/ 'a kind of snail'
tayab /tā yab/ 'earthen pot' vs /ta yāb/ 'flight'

4.2213 (b) Length

(1) Vowel Length

In Ilokano, vocalic length is phonetic and automatic, i.e., it co-occurs with stress at least in an open syllable. The contrast in the following minimal pairs is a function of the stress with which the vowel length is co-occurrent:

- **badang** ['baː .daŋ] /bá.day/ 'help' vs [bā.'daŋ] /ba dáŋ/ 'large bolo'
- **bara** ['baː .raŋ] /bá .raŋ/ 'heat' vs [bā.'raŋ] /ba ráŋ/ 'lungs'
- **gita** [gi:.taŋ] /gi taŋ/ 'venom' vs [gl.'taŋ] /gi táŋ/ 'oily taste of nuts'
- **sika** ['siː.kaŋ] /si kaŋ/ 'dysentery' vs [si.'kaŋ] /si kāŋ/ 'you'
- **tudo** ['tuː .doŋ] /tú .doŋ/ 'rain' vs [tū.'doŋ] /tu dóŋ/ 'point'
- **tugot** ['tuː .got] /tú .got/ 'bring' vs [tū.'got] /tu gōt/ 'footprint'

The following examples in which the vowel in both the weakly- and the strongly-stressed closed syllables is lengthened, will further prove that vowel length is merely a phonetic - even idiosyncratic - realization:
'V: V  'V: V:
[ 'ba:daŋ] or [ 'ba:daŋ] /ba daŋ/ 'help'
[ 'gi:taq] or [ 'gi:taq] /gi taq/ 'venom'
[ 'tu:doq] or [ 'tu:doq] /tu doq/ 'rain'

V  'V  V  'V:
[ 'ba:daŋ] or [ 'ba:daŋ] /ba daŋ/ 'large bolo'
[ 'gi:taq] or [ 'gi:taq] /gi taq/ 'oily taste of nuts'
[ 'tu:doq] or [ 'tu:doq] /tu doq/ 'point'

Therefore, vowel length, whether or not it co-occurs with stress, is not phonemic in Ilokano; since it does not constitute a meaningful or functional contrast. This generalization can be stated in the rule:

\[
\left\{ \begin{array}{c}
[V] \\
[V]
\end{array} \right\}^+ [::] = [V] /V/
\]

(2) Consonant Length

Ilokano consonants have a two-way contrast in length. A phonetically long consonant, [C:], becomes or is interpreted phonemically as geminate - i.e., a sequence of two phonemes, the consonant followed by itself, /CC/ - since it contrasts with a single consonant, /C/. Briefly stated:

[C:] > /CC/ vs /C/
The following list of minimal pairs will justify the phonemic interpretation of long consonants as geminates in Ilokano:

/C/ vs /CC/

amo /qʌ moq/ 'boss' vs ammo /qam mɔq/ 'knowledge'

bala /bʌ laq/ 'bullet' vs balla /bal lʌq/ 'lunatic'

ida /qi dʌq/ 'them' vs idda /qid dʌq/ 'bed'

ikan /qi kʌn/ 'fish' vs ikkan /qik kʌn/ 'give'

itta /qi tʌq/ 'now' vs itta /qit tʌq/ 'unhusked kernel of rice mixed with husked rice'

laba /la bʌq/ 'laundry' vs labba /lab bʌq/ 'large basket'

miki /mɨ kiq/ 'noodles' vs mikki /mɪ kiq/ 'fastidiousness'

naganak /na ga nʌk/ 'gave birth' vs nagannak /na gan nʌk/ 'parents'

4.2213 (c) Pitch, Intonation and Juncture (PIJ)

The contrast in PIJ is a contrast of combinations or bundles of their features, since these are simultaneous or co-occurrent. Linguists call such combinations or bundles 'contour patterns.' However, the contrasts intended here are veered not to the patterns per se but to the individual tentative prosodemes that compose them.

Thus, while it is true, and relevant, that /2↓/ vs /2↑/ (see (1) below) are contrastive pattern pairs, it is
more relevant at this stage of establishing the prosodemes, to consider the opposition in terms of the individual component features - /l/ vs /3/ and /↓/ vs /↑/ - although not disregarding the gestalt. The pitch level, /2/, is in this case held constant, and can in turn be established as an emic pitch or toneme using the minimal pair, /2l\downarrow/ vs /3l\downarrow/, (see (2) below). Such an interpretation should apply to the other patterns as well. It is another insight into the viable principle that an emic unit, be it a segmental phoneme or a suprasegmental prosodeme, is a point of reference in an interlocking network of contrasts. Thus,

<table>
<thead>
<tr>
<th>in the opposition:</th>
<th>the individual features contrasted are:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) /2l\downarrow/ vs /23\uparrow/</td>
<td>/l/ vs /3/</td>
</tr>
<tr>
<td></td>
<td>/↓/ vs /↑/</td>
</tr>
<tr>
<td>(2) /2l\downarrow/ vs /3l\downarrow/</td>
<td>/2/ vs /3/</td>
</tr>
<tr>
<td>(3) /23\uparrow/ vs /24\uparrow/</td>
<td>/3/ vs /4/</td>
</tr>
<tr>
<td>(4) /22\lvert/ vs /21\downarrow/</td>
<td>/2/ vs /1/</td>
</tr>
<tr>
<td></td>
<td>/↑/ vs /↓/</td>
</tr>
<tr>
<td>(5) /22\lvert/ vs /23\uparrow/</td>
<td>/↑/ vs /↓/</td>
</tr>
<tr>
<td></td>
<td>/2/ vs /3/</td>
</tr>
</tbody>
</table>
The following contrastive utterance pairs serve to reify the emic status of the tentative suprasegmental prosodemes enumerated above:

(1) /\textit{2l|}/ vs /\textit{23|}/

\textbf{Adda.} /qad dąq|/ 'There is.' vs \textbf{Adda?} /qad dąq\textup{\textdagger}/

'Is there?' or 'Did you say (echo), 'There is?''

\textbf{Awan.} /qa \textit{1|} wán\textup{\textdagger}/ 'Nothing.' vs \textbf{Awan?} /qa \textit{2|} wán\textup{\textdagger}/

'(echo) Nothing?'

\textbf{Ditoy.} /\textit{2|} di tóy\textup{\textdagger}/ 'Here.' vs \textbf{Ditoy?} /\textit{2|} 3\textup{\textdagger} tóy\textup{\textdagger}/

'(echo) Here?'

\textbf{Juan.} /h\textit{wán|}/ 'John (is my name).' or 'John (you are called).' vs \textbf{Juan?} /h\textit{wán\textup{\textdagger}/}

'(echo) John?' or 'John (you are called).'

\textbf{Saan.} /sa \textit{qán|}/ 'No.*' vs \textbf{Saan?} /sa \textit{2|} qán\textup{\textdagger}/ 'No?'

or '(tag question) Isn't it?'

\textbf{Wen.} /wen\textup{\textdagger}/ 'Yes.' vs \textbf{Wen?} /wen\textup{\textdagger}/ 'Yes?' or

'(tag question) Yes, you agree, don't you?' or

'Yes, will you?'

(2) /\textit{21|}/ vs /\textit{3l|}/

\textbf{Awan.} /qa wán\textup{\textdagger}/ 'Nothing.' vs \textbf{Awan?} /qa \textit{2|} wán\textup{\textdagger}/ 'Nothing?'

\textbf{Adda.} /qad dąq\textup{\textdagger}/ 'There is.' vs \textbf{Adda?} /qad dąq\textup{\textdagger}/

'Is there?' or 'Did you say (echo), 'There is?''

\textbf{Awan.} /qa \textit{1|} wán\textup{\textdagger}/ 'Nothing.' vs \textbf{Awan?} /qa \textit{2|} wán\textup{\textdagger}/

'(echo) Nothing?'

\textbf{Ditoy.} /\textit{2|} di tóy\textup{\textdagger}/ 'Here.' vs \textbf{Ditoy?} /\textit{2|} 3\textup{\textdagger} tóy\textup{\textdagger}/

'(echo) Here?'

\textbf{Juan.} /h\textit{wán|}/ 'John (is my name).' or 'John (you are called).' vs \textbf{Juan?} /h\textit{wán\textup{\textdagger}/}

'(echo) John?' or 'John (you are called).'

\textbf{Saan.} /sa \textit{qán|}/ 'No.*' vs \textbf{Saan?} /sa \textit{2|} qán\textup{\textdagger}/ 'No?'

or '(tag question) Isn't it?'

\textbf{Wen.} /wen\textup{\textdagger}/ 'Yes.' vs \textbf{Wen?} /wen\textup{\textdagger}/ 'Yes?' or

'(tag question) Yes, you agree, don't you?' or

'Yes, will you?'

\textbf{Adda.} /qad dąq\textup{\textdagger}/ 'There is.' vs \textbf{Adda?} /qad dąq\textup{\textdagger}/

'Is there?' or 'Did you say (echo), 'There is?''

\textbf{Awan.} /qa \textit{1|} wán\textup{\textdagger}/ 'Nothing.' vs \textbf{Awan?} /qa \textit{2|} wán\textup{\textdagger}/

'(echo) Nothing?'

\textbf{Ditoy.} /\textit{2|} di tóy\textup{\textdagger}/ 'Here.' vs \textbf{Ditoy?} /\textit{2|} 3\textup{\textdagger} tóy\textup{\textdagger}/

'(echo) Here?'

\textbf{Juan.} /h\textit{wán|}/ 'John (is my name).' or 'John (you are called).' vs \textbf{Juan?} /h\textit{wán\textup{\textdagger}/}

'(echo) John?' or 'John (you are called).'

\textbf{Saan.} /sa \textit{qán|}/ 'No.*' vs \textbf{Saan?} /sa \textit{2|} qán\textup{\textdagger}/ 'No?'

or '(tag question) Isn't it?'

\textbf{Wen.} /wen\textup{\textdagger}/ 'Yes.' vs \textbf{Wen?} /wen\textup{\textdagger}/ 'Yes?' or

'(tag question) Yes, you agree, don't you?' or

'Yes, will you?'

\textbf{Adda.} /qad dąq\textup{\textdagger}/ 'There is.' vs \textbf{Adda?} /qad dąq\textup{\textdagger}/

'Is there?' or 'Did you say (echo), 'There is?''

\textbf{Awan.} /qa \textit{1|} wán\textup{\textdagger}/ 'Nothing.' vs \textbf{Awan?} /qa \textit{2|} wán\textup{\textdagger}/

'(echo) Nothing?'

\textbf{Ditoy.} /\textit{2|} di tóy\textup{\textdagger}/ 'Here.' vs \textbf{Ditoy?} /\textit{2|} 3\textup{\textdagger} tóy\textup{\textdagger}/

'(echo) Here?'

\textbf{Juan.} /h\textit{wán|}/ 'John (is my name).' or 'John (you are called).' vs \textbf{Juan?} /h\textit{wán\textup{\textdagger}/}

'(echo) John?' or 'John (you are called).'

\textbf{Saan.} /sa \textit{qán|}/ 'No.*' vs \textbf{Saan?} /sa \textit{2|} qán\textup{\textdagger}/ 'No?'

or '(tag question) Isn't it?'

\textbf{Wen.} /wen\textup{\textdagger}/ 'Yes.' vs \textbf{Wen?} /wen\textup{\textdagger}/ 'Yes?' or

'(tag question) Yes, you agree, don't you?' or

'Yes, will you?'

Short utterances which are potential sentences have been arbitrarily chosen because they demonstrate functional differences more clearly and easily than do long ones.
Ditoy /di toy/ 'Here.' vs Ditoy? /di toy/ 'Here?'
Wen. /wen/ 'Yes.' vs Wen? /wen/ 'Yes, will you?'

(3) /23↑/ vs /24↑/
Ditoy? /di toy/ '(echo) Here?' vs Ditoy? /di toy/ '(Where, oh, where) Here?'

(4) /22/ vs /21↓/
Adda ... /qad daq/ 'There is a ...' vs Adda. /qad daq/ 'There is.'
Juan ... /hwan/ 'John ... (your surname, please)!' vs Juan. /hwan/ 'John.'
Wen ... /wen/ 'Yes ... (but)' vs Wen. /wen/ 'Yes.'

(5) /22/ vs /23↑/
Adda ... /qad daq/ 'There is a ...' vs Adda? /qad daq↑/ 'Is there?'
Awan ... /qa wan/ 'There is no ...' vs Awan? /qa wan↑/ 'Nothing?' or 'Isn't there any?'
Ditoy ... /di toy/ 'At this ...' vs Ditoy? /di toy/ 'Here?'
4.222 VARIATION and DISTRIBUTION : Phonotactics and Morphophonemics

Each of the Ilokano phonemes and prosodemes established through contrast is further specified by describing its variations, i.e., its varied manifestations called allophones or "allodemes", as well as its distribution, which means the conditions under which the allophones occur or the position in which they are found with respect to each other and to other elements in the stream of speech. A starting point for such descriptions would be an enumeration of the phonemes and prosodemes already identified, for details of which reference is made to Sec. 4.221. The emic units established through contrast are the following:

5 vowels: /i, e, a, o, u/
18 consonants: /p, t, k, q, b, d, g, m, n, n, f, s, h, v, l, r, w, y/
4 tonemes: /1, 2, 3, 4/
2 junctonemes: /|, || (symbolized as ↓ or ↑)/
2 stronemes: /', (unmarked)/
3 intonation contours: /|, ↓, ↑/

In Sec. 4.221.2 (b) are illustrative examples showing contrast between /p, t, k/ vs /q/, thereby establishing them as separate phonemes of the Ilokano dialect. An analysis of the variation and distribution of these phonemes, however, reveals that there are certain conditions
in which the emic contrast is suspended - i. e., the phoneme /q/ is at the same time an allophone of the phonemes /p, t, k/. This suspension of emic opposition is often called neutralization, but a more apt term for such linguistic phenomenon is Trubetzkoy's "Aufhebung".* It will be noted that the Aufhebung principle applies to certain phonemes as well as prosodemes.

Closely tied in with the concepts of variation and distribution are those of phonotactics and morphophonemics. Phonotactics has been defined as that area of emic description which provides general statements about permitted sequences or distribution of phonemes and prosodemes in short utterances. The description of the differences between the emic shapes representing morphemes is the task of morphophonemics. A rationale for including such description is the fact that in actual speech Ilokano morphemes change shape due to several complicating factors, linguistic or otherwise. Phonotactic and morphophonemic descriptions of the structure of Ilokano are stated in the form of rewrite rules.

4.2221 Phonotactics

4.2221 (a) Diphthongs

The structure of an Ilokano syllable containing a

*From aufheben, a German word, meaning 'to suspend.'
Diphthong is represented by the rule:

\[
S_d \begin{cases} i \\ m \\ r \end{cases} \rightarrow \begin{cases} (C)c \end{cases} Vv
\]

Since Ilokano has only five vowel phonemes, /i, e, a, o, u/ established through contrast, only these vowels can be emically considered as diphthong onglides.

On the basis of the syllable structure patterns of Ilokano - described in Sec. 2.3 - the status, function, and distribution of /w/ and /y/ may be defined as follows:

1. /w/ and /y/ are semivowels (v) when they function as diphthong offglides;

2. /w/ and /y/ are semiconsonants (c) in prevocalic or prediphthongal position, and when they participate as the last member of a consonant cluster.

The first interpretation of /w/ and /y/ is somewhat arbitrary, yet a not-quite-exact definition which is workable enough is better than none. At any rate, the ambivalent status of these phonemes - i.e., they structure with both consonants and vowels - can be resolved only for and within a given language. Let this be for Ilokano.
Two sets of ordered rewrite rules convey the interpretations more clearly, namely:

(1) /w/ or /y/ is a semivowel (v) if it functions as an offglide of a diphthong (Vv) -

\[ \text{Sd} \rightarrow CVv \]  \hspace{1cm} (i)

\[ \text{C} \rightarrow \{/p, t, k, \} \cup \{b, \ldots/\} \]  \hspace{1cm} (ii)

\[ V \rightarrow \{/i, e,\} \cup \{a, o,\} \cup \{u/\} \]  \hspace{1cm} (iii)

\[ V \rightarrow \{/w/ \cup \{^1\} \cup \{a\} \} \cup \{/y/ \cup \{a\} \cup \{o\} \cup \{u\} \} \]  \hspace{1cm} (iv)

Examples:

\[ \text{v} \rightarrow /w/ \cup \{^1\} \cup \{a\} \]

\[ \text{tili\text{w}} \rightarrow /ti li\text{w}/ 'catch' \]

\[ \text{baw-\text{in}g} \rightarrow /baw qin/ 'swerve' \]
(2) /w/ or /y/ is a semiconsonant (c) in prevocalic or prediphthongal position:

\[
\begin{align*}
S(d) & \rightarrow /C(C)cV\{C\}/ \\
& \quad \{1\} \\
C & \rightarrow \{p, t, k,\} \\
& \quad \{b, \ldots\} \\
V & \rightarrow \{i, e, a,\} \\
& \quad \{o, u\} \\
\end{align*}
\]

\[
\begin{align*}
/w/ & \rightarrow /e/ \\
C & \rightarrow /y/ \\
& \quad \{e, a\} \\
V & \rightarrow /y/ \\
& \quad \{e, a\}
\end{align*}
\]
Examples:

\[ c \longrightarrow /w/ / / _{a}^{1} \]

CCcVC  \( \text{isibroan} /qi sib br\text{\={}}n/ \) 'to inaugurate something for'

CvVv  \( \text{ruay} /r\text{\={}}y/ \) 'abundance'

cVC  \( \text{awit} /qa w\text{\={}}t/ \) 'load'

cV  \( \text{walo} /wa l\text{\={}}q/ \) 'eight'

CcV(C)  \( \text{ilualoan} /qi lwa lw\text{\={}}n/ \) 'top

\( \text{sueldo} /swel doq/ \) 'salary'

\[ c \longrightarrow /y/ / / _{\text{e}}^{1} \]

CCcVC  \( \text{empleok} /qem ply\text{\={}}k/ \) 'my employment'

CcVv  \( \text{diay} /dy\text{\={}}y/ \) 'that'

cVC  \( \text{layus} /la y\text{\={}}s/ \) 'flood'

cV  \( \text{yelo} /y\text{\={}}loq/ \) 'ice'

CcV(C)  \( \text{agsyudsyudut} /qag syud sy\text{\={}}dut/ \) 'is being peeved'

4.2221 (b) Consonant Clusters

The rules underlying the structural patterns of con­
toid clusters have been set up in Sec. 3.24, specifically
pages 108 through 121. The same rules apply to the conso­
nant clusters. Without recapitulating the detailed etic
descriptions, the rules are here re-stated emically, thus:
A. Initial Clusters (IK), Pre-vocalic

IK₁ \[\rightarrow\] C₁ \{ /p, k, \} + C₂ /l/

IK₂ \[\rightarrow\] C₁ \{ /p', t', k, \} + C₂ /r/

IK₃ \[\rightarrow\] C₁ \{ All C's \} + C₂ /w/

IK₄ \[\rightarrow\] C₁ \{ All C's \} + C₂ /y/

B. Medial Clusters (MK), Pre-vocalic

MK₁ \[\rightarrow\] IK₁ except C₁ /f/, but including C₁ /t, d/.

MK₂ \[\rightarrow\] IK₂

MK₃ \[\rightarrow\] IK₃ except C₁ /v, h/

MK₄ \[\rightarrow\] IK₄ but including C₁ /g, h/

MK₅ \[\rightarrow\] C₁ \{ /p', t', \} + C₂ /r/ + C₃ /y/

MK₆ \[\rightarrow\] C₁ /p/ + C₂ /l/ + C₃ /y/

MK₇ \[\rightarrow\] C₁ /p/ + C₂ /r/ + C₃ /w/
C.3 Final Clusters (FK), Postvocalic

\[
\begin{align*}
\text{FK}_1 \rightarrow & \quad c_1 \{ /\kappa, \eta, n, r \} + c_2 /s/ \\
\text{FK}_2 \rightarrow & \quad c_1 \{ /\eta, r \} + c_2 /k/ \\
\text{FK}_3 \rightarrow & \quad c_1 /r/ + c \{ /t, d/ \} \\
\text{FK}_4 \rightarrow & \quad c_1 /s/ + c_2 /t/ 
\end{align*}
\]

4.2221 (c) Vowels

Of the nine Ilokano vocoids charted from the corpus of phonetic data, (Fig. 7), only five proved to be phonemes of the dialect, (Fig. 10). The four others, \([i, \emptyset, a, o]\), are subsumed as positional variants or allophones, since they are in non-contrastive distribution - i. e., either in complementary distribution or in free variation - with their respective phonemic norms. Details of such distributional relationships have been presented in the etic descriptions on pages 46 through 68 of this thesis. In the present emic description, however, they will be considered briefly, giving a few illustrative examples of each.
### Variation: Distribution:

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>[i]</td>
<td>Stressed syllable, all positions.</td>
<td>/sɨ liq/ ['sɨ:.lIq] 'pepper'</td>
</tr>
<tr>
<td></td>
<td>[I]</td>
<td>Unstressed syllable, all positions.</td>
<td>/sɨ lɨd/ ['sɨ:.lId]</td>
</tr>
<tr>
<td>/e/</td>
<td>[e]</td>
<td>Everywhere - i. e., stressed and unstressed syllables - all positions.</td>
<td>/hɛ feq/ ['hɛ:.feq] 'chief'</td>
</tr>
<tr>
<td></td>
<td>[ə]</td>
<td>In free variation with [e], except in loan words.</td>
<td>/bek ke lən/ [bek.ke.'len]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[bek.ke.'lən] 'to strangle'</td>
</tr>
<tr>
<td>/a/</td>
<td>[a]</td>
<td>Stressed syllable, all positions.</td>
<td>/ɡan ɡa niq/ [ɡan.'ɡa:.niq] 'almost'</td>
</tr>
<tr>
<td></td>
<td>[ɑ]</td>
<td>Unstressed syllable, all positions.</td>
<td>/nɑ gan/ ['nɑ:.ɡan] 'name'</td>
</tr>
<tr>
<td>/o/</td>
<td>[ɔ]</td>
<td>Everywhere, all positions.</td>
<td>/ma bɔ loq/ [mɑ.'bɔ:.loq] 'a kind of fruit'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/ko lɔr/ [ko.'lor] 'color'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/sɔ loq/ ['sɔ:.loq] 'alone'</td>
</tr>
</tbody>
</table>
Variation: Distribution:

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[u]*</td>
<td>In free variation with [o]. except in loan words. (See Morphophonemics, Sec. 42222 (c) (3), Gradation, Rules 1 and 2.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/u/</td>
<td>[u]</td>
<td>Stressed syllable, all positions. /sū kat/ ['su:.kat] 'measurement' /qa sū kar/ [qa.'su:.kar] 'sugar' /qa dūq/ [qa.'duq] 'many'</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unstressed syllable, all positions. /su mū sup/ [sU.'mu:.sup] 'to puff at a cigar'</td>
<td></td>
</tr>
</tbody>
</table>

4.2221 (d) Consonants

There are 18 consonant phonemes out of the 19 contoids.

/p/     [p] Everywhere, i. e., /pā peŋ/ ['pa:.peŋ] pre- and post-vocalic, 'young coconut' all positions. /qa tēp/ [qa.'tep] 'roof'

*A case of Aufhebung. See also the etic descriptions in Section 3.211.
<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[q]*</td>
<td>In free variation with [p] as syllable coda in medial position before the syllable onsets, [q, ɣ].</td>
<td>/sip ɲêt/</td>
<td>'darkness'</td>
</tr>
<tr>
<td>[t]</td>
<td>Everywhere, /tɑ tot/ [ˈtuː.tot] all positions.</td>
<td>/qa ɡat qå gas/</td>
<td>'resin'</td>
</tr>
<tr>
<td>[k]</td>
<td>Everywhere, /kI li ki lik/ all positions.</td>
<td>/saq. moq/</td>
<td>'my armpit'</td>
</tr>
<tr>
<td>[q]*</td>
<td>In free variation with [k] as syllable coda in medial position before the syllable onsets, [b, d, m, n, l, r].</td>
<td>/qa ɡat ɲet/</td>
<td>'It smells like medicine.'</td>
</tr>
<tr>
<td>[q]</td>
<td>Everywhere, /qa ɡat qa gas/</td>
<td>/qa.gat.'qa:.gas/</td>
<td>'mouthful'</td>
</tr>
<tr>
<td>[q]</td>
<td>In free variation with [q] as syllable coda in medial position before the syllable onsets, [b, d, m, n, l, r].</td>
<td>/qal ɡoq/ [qa1.'qoq]</td>
<td>'pestle'</td>
</tr>
</tbody>
</table>

*Aufhebung.*
<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/</td>
<td>[b]</td>
<td>Everywhere, all positions.</td>
<td>/ba baq/ [baˌbaq] 'down'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/si rib/ [ˈsiː.rIb] 'wisdom'</td>
</tr>
<tr>
<td>/d/</td>
<td>[d]</td>
<td>Everywhere, all positions.</td>
<td>/dů don/ [ˈduː.don] 'grasshopper'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/tu rěd/ [tuˌrěd] 'courage'</td>
</tr>
<tr>
<td>/g/</td>
<td>[g]</td>
<td>Everywhere, all positions.</td>
<td>/gu göt/ [guˌgøt] 'gums'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/bi leg/ [ˈbiː.leg] 'power'</td>
</tr>
<tr>
<td>/m/</td>
<td>[m]</td>
<td>Everywhere, all positions.</td>
<td>/mu ma lem/ [muˌmaˌlem] 'late afternoon'</td>
</tr>
<tr>
<td>/n/</td>
<td>[m]*</td>
<td>Before bilabial stops, [p, b].</td>
<td>/pen pěn/ [pemˌpem] 'stacks'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/gin gi něd/ [giŋˌgiŋˌned] 'earthquake'</td>
</tr>
<tr>
<td>/ŋ/</td>
<td>[ŋ]</td>
<td>Elsewhere, all positions.</td>
<td>/na gã nan/ [naˌgãˌnan] 'to name'</td>
</tr>
<tr>
<td>/q/</td>
<td>[ŋ]</td>
<td>Everywhere, all positions.</td>
<td>/ŋa qa吸毒/ [ŋaˌqaŋ] 'open mouthed'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/nwañ/ [ˈnwaŋ] 'water buffalo'</td>
</tr>
</tbody>
</table>

*Aufhebung*
<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/f/</td>
<td>[f]</td>
<td>Prevocalic only, all positions. /ff noq/ ['fi::noq] 'fine' Pre-semiconsonantal, /qif fwé raq/ medial only, as the /qIf.'fwe:.rqq] first C of a cluster. 'to cast aside'</td>
<td></td>
</tr>
<tr>
<td>/v/</td>
<td>[v]</td>
<td>Prevocalic only, /nwé vaq/ /vis ka yaq/ all positions. ['nwe:.vaq][vIs.'ka:.yaq] 'name of a province'</td>
<td></td>
</tr>
<tr>
<td>/s/</td>
<td>[s]</td>
<td>Everywhere, /sú sik/ ['su:.sIk] all positions. 'altercation' /'dâ:.kes/ ['da:.kes] 'bad'</td>
<td></td>
</tr>
<tr>
<td>/h/</td>
<td>[h]</td>
<td>Prevocalic only, /hus tòq/ [hUs.'toq] initial position. 'right; enough'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[h]</td>
<td>Pre-semiconsonantal /re li hyôn/ and intervocalic only; [re.li.'hyon] initial and medial 'religion' positions. /ha lo hâ loq/ [ha.lo.'ha:.loq] 'assorted sherbet'</td>
<td></td>
</tr>
<tr>
<td>/l/</td>
<td>[l]</td>
<td>Everywhere, /la qì loq/ [la.'qi:.loq] all positions. 'cajole' /qì lâ qìl/ [qì.'la:.qìl] 'wobble'</td>
<td></td>
</tr>
<tr>
<td>Phoneme</td>
<td>Allophone</td>
<td>Conditions of Occurrence</td>
<td>Example</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>/r/</td>
<td>[r]</td>
<td>Everywhere, all positions.</td>
<td>/riː roq/ ['riː.roq] 'confusion'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/ˈqʊ per/ ['quː.per] 'soak'</td>
</tr>
<tr>
<td>/w/</td>
<td>[w]</td>
<td>Prevocalic, all positions; last member of a consonant cluster.</td>
<td>/ˈlwäɡ/ ['lwäɡ] 'froth'</td>
</tr>
<tr>
<td>/y/</td>
<td>[y]</td>
<td>Prevocalic, all positions; last member of a consonant cluster.</td>
<td>/ˈyuː yem/ ['yuː.yem] 'cloudy'</td>
</tr>
<tr>
<td>[i]</td>
<td></td>
<td>Diphthong offglide after stressed [u].</td>
<td>/ˈka sʊy/</td>
</tr>
<tr>
<td>[I]</td>
<td></td>
<td>Diphthong offglide after [U], [a], or [o].</td>
<td>/ˈsʊy sʊy/</td>
</tr>
</tbody>
</table>

*Aufhebung.*
### 4.2221 (e) Tonemes

#### Variation:
- **/2/**
  - Initial pitch level of most utterances.
  - Before or after [1], in utterance pre-final, signals a series.
  - Example: *Maysa, dua, ...* 
    - 2 1 2 [mq]:saq 'dwaq
    - or
    - 1 2 1 [mq]:saq 'dwaq
    - 'One, two, ...'

- **/1/**
  - After [2], in utterance final, signals a statement.
  - Example: *Adda.* 2 1 [qad]:daq
    - 'There is.'

- **/3/**
  - After [2], utterance terminal, signals a question.
  - Example: 3 1 [qad]:daq
    - 'Is there?'

- **/4/**
  - Before [2], near utterance final, signals a statement with emphasis or strong emotion.
  - Example: 4 2 [qad]:daq
    - 'There is! (Look!)
  - After [2], or sometimes [3], signals a question.
  - Example: 2 4 [qad]:daq
    - 'Is there?'
<table>
<thead>
<tr>
<th>Toneme</th>
<th>Allotone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/[ ]</td>
<td>[ ]</td>
<td>After [21], signals a statement.</td>
<td>[ \text{qad.'daq}]</td>
</tr>
<tr>
<td>/\</td>
<td>[ ]</td>
<td>After [23] or [24], signals a question.</td>
<td>[ \text{qad.'daq}]</td>
</tr>
<tr>
<td>./</td>
<td>[ ]</td>
<td>After [231], signals a question.</td>
<td>[ \text{qad.'daq}]</td>
</tr>
<tr>
<td>/\</td>
<td>[ ]</td>
<td>After [213], signals a question.</td>
<td>[ \text{qad.'daq}]</td>
</tr>
<tr>
<td>/\</td>
<td>[ ]</td>
<td>After [31], signals a question.</td>
<td>[ \text{qad.'daq}]</td>
</tr>
</tbody>
</table>

4.2221 (f) Junctonemes

Junctoneme Allojunctone

/\ | /\ | After two identical pitch levels, e. g., [22], signals a relatively short pause, level tone, and incomplete statement. | \[ \text{qad.'daq}\] |

*Aufhebung*/\ vs /\: \[ \] in the context [31\] is equivalent to [\[ \]}.
Variation: Distribution:

<table>
<thead>
<tr>
<th>Junctoneme</th>
<th>Allojunctone</th>
<th>Conditions of Occurrence</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td></td>
<td>/</td>
<td>[↓]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>complete statement and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a long terminal pause.</td>
<td></td>
</tr>
</tbody>
</table>
| [↑]        |              | After [23] or [13], sig-
|            |              | nals a complete sentence |         |
|            |              | and a long terminal pause.|         |

'Is there?'

4.2221 (g) Stronemes

Stroneme       Allostrone

/*/              [']            An Ilokano has at
/ / (unmarked)   [ ]            least one strong stress,

One Strong Stress, [']:

(x)(x)(x)'x   [ba·tI·kU·'len] 'giblet'
(x)(x)(x)'xx  [na·kα·pUD·'pu:·dot]
          'It's very hot.'
(x)(x)x'xxx   [na·kα·pUD·'pu:·do·ten]
          'It's very hot now.'

67 The symbol x = syllable; the parenthesis indicates optional occurrence of the syllable. In the specific examples given here, however, x is obligatory.
Variation:  Distribution:

Stroneme  Allostrone  Conditions of Occurrence  Example

Two Strong Stresses, [']:

\[\text{xx'xx'x [mg.kI.'qin.nq.yan.qa.'yat] 'lovely'}\]

\[(x)x'xxx'x [mg.kI.'bin.nI.'la:.qan]\]

'to be in love with someone'

\[(x)x'xx'xx [mg.kI.'bin.nI.'la:.qan]\]

'to join in the mutual counting'

\[(x)(x)x'xxx'xx\]

\[\text{[mg.kI.pag.'pin.mI.'li:.qIU] 'uncalled for participation in observing'}\]

\[\text{xx'xxxx'xx}\]

\[\text{[mg.kI.'lin.lIn.nem.me.'na:.nen]}\]

'He's playing hide-and-seek now.'

\[(x)x'xx'xxx\]

\[\text{[mg.kI.'bin.bIIn.nI.'la:.qan.nen]}\]

'He has joined in the mutual counting.'

There are two important observations about the distribution of stress in Ilokano. First, there has to be at least one obligatory syllable before the stressed antepenultimate syllable, e. g., [x'xxx]. Ilokano does not superpose stress at the beginning of a three-syllable word, in the way that English does, e. g., possible [pa:.sI.bl] ['xxx]. Secondly, in the patterns with two stresses, there
has to be an obligatory syllable before the first strong stress.

Of the suprasegmentals, stress is the primary feature in achieving a pattern of prominence in the word, the other features tying in very closely. Thus, for Ilokano:

\[
\text{Syllable Prominence} \quad \rightarrow \quad + [\text{Str}] + \{ \text{Length} \}
\]

For example:

Stress: \([x 'x x] \quad [\text{nag.'pu}.\text{dot}]\) 'It's hot.'

plus Length: \([x 'x: x] \quad [\text{nag.'pu}.\text{dot}]\) 'It is hot.'

plus P I J : \([x 'x:.x\downarrow] \quad [\text{nag.'pu}.\text{dot}\downarrow]\) 'It is hot.'

4.2222 Morphophonemics

A link or transducer between the syntactic and the phonological components of a grammar is morphophonemics - roughly equivalent to systematic phonemics in Chomsky's generative-transformational grammar. To the transformationalists, systematic phonemics is second to the last stage in the grammar of a language - the last being systematic phonetics which describes how sentences are actually produced and phonetically interpreted by the native speaker.

---

68

In this phonological grammar of Ilokano, morphophonemics deals with the variations in the phonemic structure of morphemes. It also describes how the phonemic representation of each morpheme is phonetically realized.

The morphophonemic changes in Ilokano may take the form of one, or a combination of any, of the following processes:

(a) Phoneme addition
(b) Phoneme deletion
(c) Phoneme substitution as a result of:
   (1) assimilation
   (2) dissimilation
   (3) gradation
   (4) reduplication

4.2 Phoneme Addition

The phenomenon of phoneme addition in Ilokano may be explained using the examples below. 1) In the first example, /sum bɾék/, the intrusive /b/, being a bilabial stop, is a liaison between the bilabial nasal, /m/, to the alveolar flap, /ɾ/. The fact that /b/ is non-nasal like /ɾ/ facilitates the transition from /m/ to /ɾ/. 2) The same may be said for the alveolar /n/ linking the oral, /a/, to the dental, /d/. Actually the process involved has a semblance of regressive assimilation. The intrusive /n/ can likewise be interpreted as a phenomenon of phoneme
substitution (see discussion about dissimilation). 3) The addition of consonants by gemination is induced by the shift of stress to the syllable in which the second member of the geminate occurs. This has reference to gradation as explained in Sec. 4.2222 (c).

<table>
<thead>
<tr>
<th>Hypothetical Morpheme</th>
<th>Phonemic Form (*)</th>
<th>Phonemic Representation</th>
<th>Phonetic Realization</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Intrusive /b/:</td>
<td>#serrek# 'entrance'</td>
<td>+ #-um-# ----&gt; */sumerrek/ ----&gt; /sum rék/</td>
<td>/sum brék/ ----&gt; [sUm.'brek]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>'to enter'</td>
</tr>
<tr>
<td>(2) Intrusive /n/:</td>
<td>#madi# 'won't'</td>
<td>+ #-ak# 'I' ----&gt; */madiak/ ----&gt; /man dyák/ ----&gt; [mOn.'dyak]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>'I won't.'</td>
</tr>
<tr>
<td>(3) Other intrusive consonants:</td>
<td>/p/ #tupi# 'hem'</td>
<td>+ #-am# 'you' ----&gt; */tupiam/ ----&gt; /tup pyám/ ----&gt; [tUp.'pyam]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>'You hem it.'</td>
</tr>
<tr>
<td>/t/ #luto# 'cook'</td>
<td></td>
<td>+ #-ek# 'I' ----&gt; */lutoek/ ----&gt; /lut twëk/ ----&gt; [lUt.'twek]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>'I cook it.'</td>
</tr>
<tr>
<td>Morphemes</td>
<td>Hypothetical Form (*)</td>
<td>Phonemic Representation</td>
<td>Phonetic Realization</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------</td>
<td>-------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>/k/ #lako# 'sale'</td>
<td>+ #-an# 'to' -- &gt; */lakoan/ -- &gt; /lak kwān/ -- &gt; [lak.'kwan]</td>
<td>'to sell to'</td>
<td></td>
</tr>
<tr>
<td>/b/ #abi# 'insult'</td>
<td>+ #-en# 'to' -- &gt; */abien/ -- &gt; /qab byēn/ -- &gt; [qab.'byen]</td>
<td>'to insult'</td>
<td></td>
</tr>
<tr>
<td>/d/ #adu# 'abundant'</td>
<td>+ #-an# 'of' -- &gt; */aduan/ -- &gt; /qad dwān/ -- &gt; [qad.'dwan]</td>
<td>'well off'</td>
<td></td>
</tr>
<tr>
<td>/g/ #rugi# 'start'</td>
<td>+ #-am# 'you' -- &gt; */rugiam/ -- &gt; /rug gyām/ -- &gt; [rUG.'gyam]</td>
<td>'You start it.'</td>
<td></td>
</tr>
<tr>
<td>/m/ #sim8# 'knot'</td>
<td>+ #-en# 'to' -- &gt; */simoen/ -- &gt; /sim mwēn/ -- &gt; [sIm.'mwēn]</td>
<td>'to knot'</td>
<td></td>
</tr>
<tr>
<td>/n/ #ani# 'harvest'</td>
<td>+ #-en# 'to' -- &gt; */anien/ -- &gt; /qan nyēn/ -- &gt; [qan.'nyēn]</td>
<td>'to harvest'</td>
<td></td>
</tr>
<tr>
<td>/η/ #sango# 'front'</td>
<td>+ #-an# 'at' -- &gt; */sangoan/ -- &gt; /saq ywān/ -- &gt; [saq.'ywan]</td>
<td>'where to face'</td>
<td></td>
</tr>
<tr>
<td>/l/ #gulo# 'confusion'</td>
<td>+ #-en# 'to' -- &gt; */guloen/ -- &gt; /gul lwēn/ -- &gt; [gUL.'lwēn]</td>
<td>'to confuse'</td>
<td></td>
</tr>
<tr>
<td>/r/ #buro# 'preserve'</td>
<td>+ #-am# 'you' -- &gt; */buroem/ -- &gt; /bur mwēm/ -- &gt; [bUr.'mwēm]</td>
<td>'You preserve it.'</td>
<td></td>
</tr>
<tr>
<td>/f/ #kafē# 'coffee'</td>
<td>+ #-en# 'to' -- &gt; */kafēen/ -- &gt; /kaf fyēn/ -- &gt; [kaf.'fyēn]</td>
<td>'to drink as coffee'</td>
<td></td>
</tr>
<tr>
<td>/s/ #kaasi# 'pity'</td>
<td>+ #-an# 'to' -- &gt; */kaasin/ -- &gt; /ka qas syān/ -- &gt; [ka.qas.'syān]</td>
<td>'to pity'</td>
<td></td>
</tr>
</tbody>
</table>
4.2222 (b) Phoneme Deletion

In Ilokano, morphophonemic change is also reflected in the loss of phonemes - vowels as well as consonants. The loss of medial vowels is called syncope. It will be noted that the vowel that is usually syncopated is /e/, possibly due to the fact that it tends to become weakened and reduced to the status of schwa, /ə/, and finally lost. In some word forms, the consonants adjacent to /e/ are also lost.

<table>
<thead>
<tr>
<th>Morphemes</th>
<th>Hypothetical Form (**)</th>
<th>Phonemic Representation</th>
<th>Phonetic Realization</th>
</tr>
</thead>
<tbody>
<tr>
<td>(#ārem#)</td>
<td>*āremen/ → /qar mën/ → [qar.'mën]</td>
<td>'to court'</td>
<td></td>
</tr>
<tr>
<td>'courtship'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(#kapêt#) + #en# →</td>
<td>*ákapeten/ → /kap tën/ → [kap.'ten]</td>
<td>'to hold'</td>
<td></td>
</tr>
<tr>
<td>'hold'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(#pateg#)</td>
<td>*pategen/ → /pat gén/ → [pat.'gen]</td>
<td>'to endear'</td>
<td></td>
</tr>
<tr>
<td>'endearment'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(#rikêp# + #an# →</td>
<td>*rikêpan/ → /rik pân/ → [rik.'pan]</td>
<td>'to shut (döór) to'</td>
<td></td>
</tr>
<tr>
<td>'shutter'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(2) Loss of /el/, /en/, /re/, /er/, /ed/, and /ep/:  

#kellêb# 'cover' → 'to seek cover'  
+ #um-# 'to' → #akumelleb/ → /kum lêb/ → [kUm.'leb] 

#pennêk# 'satisfaction' → 'to be satisfied'  
+ #ma-# 'to be' → #mapennek/ → /map ſêk/ → [map.'nek]
### Hypothetical Morphemes Form (*) Phonemic Representation Phonetic Realization

<table>
<thead>
<tr>
<th>#serrek# 'entrance'</th>
<th>'where to enter'</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ #an# 'at' —&gt; */serrekan/ —&gt; /ser kan/ —&gt; [ser.'kan]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#serrek# 'entrance'</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ #–um–# 'to' —&gt; */sumerrek/ —&gt; /sum rek/ —&gt; [sUm.'rek]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#tedda# 'left-over'</th>
<th>'to be left-over'</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ #ma–# 'to be' —&gt; */matedda/ —&gt; /mat dák/ —&gt; [mat.'daq]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#leppas# 'finish'</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ #ma–# 'to be' —&gt; */maleppas/ —&gt; /mal pás/ —&gt; [mbl.'pas]</td>
</tr>
</tbody>
</table>

### 4.2222 (c) Phoneme Substitution

(1) **Assimilation:** Two different adjacent phonemes become more like each other. When the first phoneme in the series changes to become similar to the one that follows it, i.e., phoneme A assimilates to phoneme B, the process is described as **regressive assimilation**; the reverse process is called **progressive assimilation**. All phenomena of assimilation in Ilokano are of the regressive type.

(1a) **Alveolar** /n/ > **bilabial** /m/, assimilates to bilabials /p, b/:

- #banbán# —> /banban/ —> /bäm bän/ —> [bäm.'ban] 'thin bamboo strips used for tying'
- #penpen# —> /penpen/ —> /pem pën/ —> [pem.'pen] 'stack'
(lb) Alveolar /n/ velar /ŋ/, assimilates to velars /k, g/:
#gunguna# → /gunguna/ → /guŋ gu nāq/ → [guŋ.gu."naq]
'gain'

#kenka# → /kenka/ → /keŋ kāq/ → [keŋ."kaq] 'to you'

(lc) Bilabial /p/ alveolar /r/, assimilates to alveolar /n/:
#ma-# + #pennek# → /mapennek/ →
By deletion: /map nēk/ → [məp."nek]
By assimilation: /mar nēk/ → [mər."nek]

(2) Dissimilation: Two identical adjacent phonemes become dissimilar. This is the reverse process of assimilation.

(2a) Dissimilation as to voicing: /d/ /t/ before /g/:
#asidēg# 'near' + #-an# 'to' → /asidegan/ →
By syncope: /qasid gān/ → [qa.sId."gan]
By dissimilation: /qa sit gān/ → [qa.sIt."gan]
'to go near to'

(2b) Dissimilation as to point-manner of articulation:
dental-stop+dental-stop /dd/ alveolar-nasal+dental-stop /nd/:
#madi# 'won't' + #-ak# 'I' → /madiak/ →
By phoneme addition: /mad dyāk/ → [mad."dyak]
By dissimilation: /man dyāk/ → [man."dyak]
'I won't.'
Gradation: The substitution of phonemes - i.e., vowel change - due to shift of stress is a process called gradation. In Ilokano, the vowels that generally undergo such change are: /o/ which becomes /u/ or a semiconsonant /w/; and, /i/ or /e/ which becomes a semiconsonant /y/. This type of morphophonemic change and the conditions that influence it can be explicitly described in the following four rules:

Gradation Rule 1:

\[
\begin{array}{c}
\text{}/o/\rightarrow /u/\text{, }/C\underset{\text{u}}{\text{ā}C}\rightarrow /C\underset{\text{u}}{\text{ā}C}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/ak\text{}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/am\text{}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/an\text{}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/ek\text{}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/em\text{}/
\end{array}
\]

\[
\begin{array}{c}
\text{}/en\text{}/
\end{array}
\]

Examples:

#alimong# + #-ek# —> /alimonek/ —> /qa li mi nek/ —> [qa.II.'mu:n:ek]

'swear' 'I'

#pfur# + #-am# —> /puoram/

'fire' 'you'

#baot# + #-en# —> /baoten/ —> [ba.'qu:ten] 'to lash'

You burn it.'
Gradation Rule 2:

\[
/o/ /c\{1\} \{C\} /u/ \longrightarrow /u/ /c\{1\} \{C\} + \begin{cases} 
-\text{äk} \\
-\text{äm} \\
-\text{än} \\
-\text{êk} \\
-\text{êm} \\
-\text{ên} 
\end{cases}
\]

Examples:

\#apöy\# + \#en\# \longrightarrow /apøyen/ \longrightarrow 'fire' 'to' /qa pu yén/ \longrightarrow [qa\pu\'yen] 'to cook (rice)'

\#bungon\# + \#-en\# \longrightarrow /bungonen/ \longrightarrow 'wrapper' 'to' /bu yu nën/ \longrightarrow [bU\yu\'nen] 'to wrap up'

\#liköd\# + \#-an\# \longrightarrow /likodan/ \longrightarrow 'back' 'to' /li ku dän/ \longrightarrow [lI\ku\'dan] 'to turn one's back to'

Gradation Rule 3:

\[
\begin{cases} 
/e/ \begin{cases} 
/CVC_1\longrightarrow C_2/ \end{cases} \longrightarrow /y/ /CVC_1C_1 + \begin{cases} 
-\text{äk} \\
-\text{äm} \\
-\text{än} \\
-\text{êk} \\
-\text{êm} \\
-\text{ên} 
\end{cases} \\
/e/ \begin{cases} 
/CVC_1\longrightarrow C_2/ \end{cases} \longrightarrow /y/ /CVC_1C_1 + \begin{cases} 
-\text{äk} \\
-\text{äm} \\
-\text{än} \\
-\text{êk} \\
-\text{êm} \\
-\text{ên} 
\end{cases} 
\end{cases}
\]

Gradation Rule 4:

\[
\begin{cases} 
/o/ \begin{cases} 
/CVC_1\longrightarrow C_2/ \end{cases} \longrightarrow /w/ /CVC_1C_1 + \begin{cases} 
-\text{äk} \\
-\text{äm} \\
-\text{än} \\
-\text{êk} \\
-\text{êm} \\
-\text{ên} 
\end{cases} \\
/u/ \begin{cases} 
/CVC_1\longrightarrow C_2/ \end{cases} \longrightarrow /w/ /CVC_1C_1 + \begin{cases} 
-\text{äk} \\
-\text{äm} \\
-\text{än} \\
-\text{êk} \\
-\text{êm} \\
-\text{ên} 
\end{cases} 
\end{cases}
\]

\[69\]

\[C_1C_1 = \text{Consonant geminates. For examples illustrating Rules 3 and 4, see Sec. 4.2222 (a)(3).}\]
(4) Reduplication: A morphological process whereby there is a repetition of a radical element is referred to as reduplication. In Ilokano, the reduplication is either partial, i.e., only the first syllable of the radical element is repeated, or full, in which the entire radical element is reduplicated. No phoneme substitution results from a partial reduplication in the language. The Ilokano vowel /o/ becomes /u/ in the first radical element of a full reduplication. The following rule describes such morphophonemic change:

\[ /o/ / \text{CVC} \quad \{v\} / \quad \longrightarrow \quad /u/ / \text{CVC} \quad \{v\} / \text{CVC} \quad \text{o}\{v\} / \]

Examples:

#ag# + #luto#  \[\longrightarrow \text{aglutoluto} \quad \longrightarrow \text{/qag lu tu lú toq/} \longrightarrow \text{'to' 'cook'} \quad [\text{qag} \quad \text{luU} \quad \text{tuU} \quad \text{luUtoq}] \quad \text{'to play cooking'}

#baboy#  \[\longrightarrow \text{baboybaboy} \quad \longrightarrow \text{/ba buy bã boy/} \longrightarrow \quad [\text{baU} \quad \text{buU} \quad \text{bøI}] \quad \text{'pill bug'}

#kulôg#  \[\longrightarrow \text{kulokkulok} \quad \longrightarrow \text{/ku lug ku lôg/} \longrightarrow \quad [\text{kUU} \quad \text{luU} \quad \text{kUU} \quad \text{loU}] \quad \text{'a game of dice'}

#súrot#  \[\longrightarrow \text{surotsurot} \quad \longrightarrow \text{/su rut sú sot/} \longrightarrow \quad [\text{sU} \quad \text{ruU} \quad \text{sU} \quad \text{soU}] \quad \text{'trailer'}

4.3 The Stream of Speech

4.31 Corpus

'Second year my now here Vancouver, isn't it?

Malkadua nga tawen kon ditoy Vancouver, saan kadi?

[maɪkædˈdwaɪɡətəˈweŋkɒndIˈtoʊvæŋkəˈvaːvər] saˈqaŋkəˈdiq]

Thank you for generous aid your to the Philippines.'

Dios ti aŋgina iti nahushusto nga badang yo iti Filipinas.

'dyostIqəˈŋiːnaqItnəInəhUsˈhustogabədəŋˈyoː] qItIIfIlIˈpiːnas]

4.32 Concepts

The analysis of the stream of speech in the next five pages aims to illustrate graphically the general concepts in linguistics enumerated below. The information derived from such graphic articulatory analysis is in a way roughly similar to that which a spectrogram, sonagram, kymogram, or oscillogram in instrumental phonetics would yield about the corpus of utterances above.

---

70 The corpus includes all the 34 emic units established in this chapter. Allow for a margin of error since one cannot transcribe faithfully all the phonetic events of actual speech.

71 For an adequate and detailed account of instruments
The graphic analysis shows that:

a. The ongoing stream of a meaningful utterance is a complex, ever-changing continuum of different sound features;

b. Each utterance can be uniquely, although inadequately, represented as a finite set of discrete emic elements occurring in succession or simultaneously;

c. A segmental phoneme represents one or more phonetic features;

d. A suprasegmental prosodeme extends over a series of segmental groupings;

e. Sounds in context are modified in various ways because of their influence on one another, e.g., \[n]>[ŋ]
before \[k\];

f. Borrowed sounds tend to be altered to conform to the native phonetic habits, and to the native phonemic code, e.g., \[\nu\nu\mu \nu\nu\nu\nu\] > \[\nu\nu\mu \nu\nu\nu\nu\];

g. Phonetics is closely related, is a prerequisite, to phonemics. One cannot be dogmatic about the phonemes of a language or dialect unless one is conversant with its phonetic structure and arrangement.

4.3 Analysis

Table 2. The Stream of Speech Analyzed

<table>
<thead>
<tr>
<th>EMIC Sup Seg:</th>
<th>2</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITS Seg'mal:</td>
<td>may kaddwanata wenko</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ETIC FEATURES***

- **Close**
- **Half-close**
- **Half-open**
- **Open**
- **Stop**
  - Bilabial
  - Dental
  - Velar
  - Glottal
- **Fricative**
  - Labio-Dental
  - Dental
  - Glottal
- **Nasal**
  - Bilabial
  - Alveolar
  - Velar
- **Lateral**
  - Alveolar
- **Flap**
  - Alveolar
  \[
  \left\{ \begin{array}{l}
  \text{bil} \\
  \text{pál}
  \end{array} \right. \\
  \text{Semi} \\
  \left\{ \begin{array}{l}
  \text{bil} \\
  \text{pál}
  \end{array} \right.
  \]
- **Labialized**
- **Dentalized**
- **Palatalized**
- **Velarized**
- **Lengthened**

*Every symbol at the point of intersection indicates the presence of an etic feature. Specifically, for vowels: *f* = front, + = central, *b* = back; for consonants: *v* = voice, *b* = breath.*
<table>
<thead>
<tr>
<th>EMIC Sup:</th>
<th>UNITS Seg:</th>
<th>n</th>
<th>d</th>
<th>i</th>
<th>t</th>
<th>o</th>
<th>y</th>
<th>v</th>
<th>a</th>
<th>q</th>
<th>k</th>
<th>u</th>
<th>v</th>
<th>e</th>
<th>r</th>
<th>s</th>
<th>q</th>
<th>a</th>
<th>q</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETIC FEAT.</td>
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<tr>
<td>Close</td>
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<tr>
<td>Half-close</td>
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<tr>
<td>Half-open</td>
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Chapter 5
SUMMARY AND CONCLUSIONS

5.1 **Summary**

The linguistic data described and classified at the taxonomic level of this research — i.e., the etic and emic analyses in the preceding chapters — will now, by way of summary, be considered at a higher level of abstraction: the explanatory level. The latter characterizes the relationships or patterns of combinability of the emic units by means of a system of rewrite rules. The output of each level of description may be schematically shown in the order of their degree of abstraction, thus:

<table>
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<th>Taxonomic level:</th>
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The rationale for the final scheme of description derives from the realization that a totality does not consist of things but of relationships, and, that *language* — which is a totality or gestalt — *is essentially a rules-based activity*. This ties in with the modern concept of a *grammar*, namely, that it *is a theory of a language* — a system of rules which explicitly characterizes a native speaker-hearer’s competence and performance in his language.
Returning now to the two problems previously stated which this study purports to seek answers for, namely:

Problem 1: What are the emic units of the cultivated Ilokano dialect as spoken in Bayombong, Nueva Vizcaya?

The dialect distinguishes a total number of thirty-four emic units, summarized as follows:

Segmental Phonemes -

Five (5) Vowels:

Eighteen (18) Consonants:
Suprasegmental Prosodemes

Four (4) Pitch Levels or Tonemes

/4/ Extra High
/3/ High
/2/ Normal
/1/ Low

Three (3) Intonation Contours

/|/ Level intonation
↓/ Falling intonation
↑/ Rising intonation

Two (2) Junctonemes

/|/ Pre-terminal short pause
/||/ \rightarrow [↓] or [↑] Terminal long pause

Two (2) Stronemes

/*/ Strong stress
/ / (Unmarked) Weak stress

Problem 2: What phonological patterns of occurrence relations between the emic units does the dialect permit?

The phonological grammar is the answer. The underlying patterns of relative occurrence of the linguistic units are stated in the form of explicit rewrite rules. The grammar is a finite set of - i.e., only 42 - unordered rules that generate an infinite number of combinable phonological elements in the Ilokano dialect. Such rules are grouped into two categories; namely:
Group A, Phonetic Rules, states the phonetic constitution of phonemes with respect to stated contexts; and

Group B, Morphophonemic Rules, states the phonemic constitution of morphemes with respect to stated contexts.

The following is a finite set of symbols which partly constitutes the metalanguage of the phonological grammar:

---→ "is represented by" or
   "is rewritten as"

/    "in the context (environment)"

[]  etic unit or units

//  emic unit or units

{} a set: "choose one and only one on a given application of the rule"

() "optional - include the item or items where applicable"

[]...[] "the rest of the items belonging in the syllable"

C Contoid (or Consonant)

V Vocoid (or Vowel)

c Semicontoid (or Semiconsonant)

v Semivocoid (or Semivowel)

Af Affix: -ak, -am, -an, -ek, -em, -en

The phonological grammar of the dialect of Ilokano under study has been constructed with these as given: the finite number of phonemic data, plus the finite set of
symbols, plus a working knowledge of the basic characteristics of a good grammar, namely: (a) Descriptive adequacy - a grammar is descriptively adequate to the extent that its structural descriptions correspond to the intrinsic competence and linguistic intuition of the native speaker; and, (b) Simplicity, economy and generality - identified with fewer symbol tokens used in each descriptive statement or rule to generate an infinite number of linguistic forms.

All the statements about the structure of relative occurrence, i.e., of distribution, apply within the domain of the syllable. Thus, the elements enclosed in square brackets, [ ], or slashes, / /, in the case of morphophonemic rules, represent the structure of a single syllable. The rules underlying the syllable structures (SS) of Ilokano have been stated as follows:

SS Rule 1:  
\[ S_1 \overset{\{1\}}{\rightarrow} \{ [C(c)C(c)V] \} \]

SS Rule 2:  
\[ S_f \overset{\{f\}}{\rightarrow} \{ [(C)c(c)Vc] \} \]

SS Rule 3:  
\[ S_d \overset{\{d\}}{\rightarrow} \{ [(C)c]Vv] \} \]
Every rule is of the form

\[ X \rightarrow Y. \]

For example:

\[ /i/ \rightarrow [i] / \left( \begin{array}{c}
\text{['} C_\text{c}(v) ] \\
\text{['} C_\text{c}(C) ] \\
\text{['} C_\text{c}(C) ] \\
\text{['} C_\text{c}(C) ] \\
\end{array} \right) \]

To obviate the limitless proliferation of symbols and statements, the writer imposes a restriction on the number employed by working toward a maximum generality. Thus, for \(/i/\), the four specific rules or statements, called \textit{schema} in modern linguistic terminology, are coalesced into a single general rule or statement correspondingly called \textit{schemata}:

\[ /i/ \rightarrow [i] / \left( \begin{array}{c}
\text{['} C_\text{c}(C) ] \\
\end{array} \right) \]

Almost all of the rewrite rules which make up the phonological grammar of the Ilokano dialect are constructed in the general form of schemata, and are therefore to be similarly interpreted.

For the operational concepts, \textit{schema} and \textit{schemata}, credit is due to Professor Noam Chomsky. Recalled from the lecture-discussions in his class in Advanced Phonology at the 1966 Summer Linguistic Institute of the Linguistic Society of America, University of California at Los Angeles (UCLA).
It will be noted that even at this abstract explanatory level of description, the trimodal scheme, $U = V$, is still operative.

**CONTRAST**  
**VARIATION**  
**DISTRIBUTION**

The _eme has the allo_ in the context

A. Phonetic Rules (PR):

PR 1: /i/ $\rightarrow$ \[
\begin{align*}
[\text{i}] & / [^*\text{c(c)}\underline{\{V\}_c}] \\
& [\text{I}] / [\text{c(c)}\underline{\{V\}_c}] \\
\end{align*}
\] (1)

PR 2: /e/ $\rightarrow$ \[
\begin{align*}
[\text{e}] & / [^*\text{c(c)}\underline{\{V\}_c}] \\
& [\text{e}] / [^*\text{c(c)}\underline{\{V\}_c}] \\
\end{align*}
\] (1)

PR 3: /a/ $\rightarrow$ \[
\begin{align*}
[\text{a}] & / [^*\text{(c)c(c)}\underline{\{V\}_c}] \\
& [\text{a}] / [\text{c(c)}\underline{\{V\}_c}] \\
\end{align*}
\] (1)
PR 4: \( /o/ \rightarrow [o]/ [(^i)(C)(c)] \rightarrow ([I]_C)\) \hspace{1cm} (1)

PR 5: \( /u/ \rightarrow \{\} \)

PR 6: \( /p/ \rightarrow \{\} \)

\[ [c_v] \]

\[ [p] / \{ \} \]

\[ [a] / [c_v] \]

\[ [\ldots] \]
PR 9: /a/ → [a] /
\[
\begin{array}{c}
\{CV\} \\
\{v(C)\}
\end{array}
\] (1)

PR 10: /b/ → [b] /
\[
\begin{array}{c}
\{CV\} \\
\{v(C)\}
\end{array}
\] (11)

PR 11: /d/ → [d] /
\[
\begin{array}{c}
\{CV\} \\
\{v(C)\}
\end{array}
\] (11)

PR 12: /g/ → [g] /
\[
\begin{array}{c}
\{CV\} \\
\{v(C)\}
\end{array}
\] (11)
PR 13: /m/ \[\rightarrow [m]/ \begin{cases} \{ V(\{V\}) \} \\ \{ \ldots \} \{ V(\{V\}) \} \{ V(\{V\}) \} \end{cases} \]

PR 14: /n/ \[\rightarrow [n]/ \begin{cases} \{ V(\{V\}) \} \\ \{ \ldots \} \{ V(\{V\}) \} \{ V(\{V\}) \} \end{cases} \]
PR 15: /ŋ/ \rightarrow [ŋ]/ \left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

\left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

PR 16: /f/ \rightarrow [f]/ \left\{ \left[\varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

\left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

PR 17: /s/ \rightarrow [s]/ \left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

\left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

PR 18: /h/ \rightarrow [h]/ \left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}

\left\{ \left[\varepsilon(\{\text{c}\})\right] \right\}
\left[\ldots \varepsilon(\{\text{c}\})\varepsilon(\{\text{c}\})\right] \tag{11}
PR 19: /v/ $\rightarrow$ [v]/ \( \text{[...]} \text{(c)V(C)} \) (i)

PR 20: /l/ $\rightarrow$ [l]/ \( \text{[...]} \text{V(\{V\})]} \) (ii)

PR 21: /r/ $\rightarrow$ [r]/ \( \text{[...]} \text{V(\{V\})]} \) (ii)
PR 22: \( /w/ \rightarrow [u]/ ['C[i]\_\_] \)  
\( [u]/ ['C[i]\_\_] \)  
\( [U]/ ['C[i]\_\_] \)

PR 23: \( /y/ \rightarrow [y]/ ['C[u]\_\_] \)  
\( [y]/ ['C[u]\_\_] \)  
\( [U]/ ['C[u]\_\_] \)  
\( [e]\)  
\( [a]\)  
\( [\_\_] \)  
\( [o]\)  
\( [U]\)
The schemata
/ [CV__].

/ [___V(\{c\})].

and
/ [.....][___(\{c\})(\{v\})].

may be further coalesced into more involved schemata in order to account for the observed regularities in many of the rules, thereby achieving greater generality. Thus:

/All C's
except
f, v, h/

\[ \{p, t, k, \} \quad \rightarrow \quad \{b, d, g, \} \quad / \quad [CV__] \]

/All C's/  \[ \rightarrow \quad \{b, d, g, \} / \quad [___V(\{c\})] \]

/All C's
except
q, v, h/

\[ \{p, t, k, \} \quad \rightarrow \quad \{b, d, g, \} \quad / \quad [.....][___(\{c\})(\{v\})] \]
An exception to PR 24 through 32: Unlike in the case of the segmentals - where the items enclosed in square brackets represent a single syllable - the suprasegmental symbols between the brackets are those superposed on one or more syllables.
PR 28: \( \downarrow / \rightarrow [\downarrow] / [21\_] \) 

\[
\begin{align*}
[\uparrow] / \{ \frac{\{23\}^{12}}{24} \} \\
[\downarrow] / [231\_] \\
[\uparrow] / [213\_] \\
[\downarrow] / [31\_] 
\end{align*}
\]

(i)

PR 29: \( \uparrow / \rightarrow [\uparrow] / [213\_] \) 

\[
\begin{align*}
[\uparrow] / [213\_] \\
[\uparrow] / [31\_] \\
[\downarrow] / [231\_] \\
[\uparrow] / [213\_] \\
[\downarrow] / [31\_] 
\end{align*}
\]

(iii)

PR 30: \( \downarrow / \rightarrow [\downarrow] / \left\{ \frac{\{44\}^{11}}{33} \right\} \) 

\[
\begin{align*}
[\downarrow] / [21\_] \\
[\uparrow] / \left\{ \frac{\{(2)13\}^{23}}{(2)31} \right\} 
\end{align*}
\]

(i)

PR 31: \( \uparrow / \rightarrow [\uparrow] / \left\{ \frac{(2)13}{(2)31} \right\} \) 

\[
\begin{align*}
[\downarrow] / [21\_] \\
[\uparrow] / \left\{ \frac{(2)13}{(2)31} \right\} 
\end{align*}
\]

(i)

\[
\begin{align*}
[\downarrow] / [21\_] \\
[\uparrow] / \left\{ \frac{(2)13}{(2)31} \right\} 
\end{align*}
\]
B. Morphophonemic Rules (MR):

MR 1 - Phoneme Addition by Gemination:

\[
\begin{align*}
/C_2/ \left\{ \begin{array}{c}
\langle C_1V \rangle / \langle VC \rangle/
\langle C_2 \rangle / \\
\langle CV \rangle / \langle ^\prime VC \rangle
\end{array} \right\} & \quad \rightarrow \quad /C_2C_2/ /C_V^{2} / \langle C_2 \rangle^{2+Af}\quad (i)
\end{align*}
\]

MR 2 - Phoneme Deletion; /e(C)/:

\[
\begin{align*}
\{ /V_2/ \} /C_1V_1/ /C_2-C_3/ \quad \rightarrow \quad \text{Deleted} /C_1V_1C_2/ /C_3^+Af/\quad (i)
\end{align*}
\]
MR 2b: /eC₂/ /C₁u/ /m/ /C₂VC/ ——→

Deleted / /C₁um/ /C₂VC/  

(1)

MR 2c: /eC₂/ /ma-/ /C₁/ /C₂VC/ ——→

Deleted / /ma-C₁/ /C₂VC/  

(1)

MR 3 - Phoneme Substitution

MR 3a - Assimilation:

\[
/m/ /CV\quad /\{^b\}_pVC/  
\]

/\eta/ ——→ \[
\{/\eta/ /CV\quad /\{^k\}_gVC/ \} 
\]

(11)
MR 3b - Gradation:

MR 3b(1): \( /o/ / /C_a^i / /C_{\text{u}}^{\text{v}} / \text{----} \)

\[
\begin{array}{c}
\text{u} \\
\end{array}
\]

MR 3b(2): \( /o/ / /C_a^i / /C_{\text{u}}^{\text{v}} / \text{----} \)

\[
\begin{array}{c}
\text{u} \\
\end{array}
\]

MR 3b(3): \( \{^{1}e\} / / \left\{ \begin{array}{c}
/_{\text{v}}^{\text{v}} / /C_{1}^{C_{2}} / \\
/_{\text{v}}^{\text{v}} / /C_{1}^{C_{2}} / \\
\end{array} \right\} \text{----} \)

\[
\begin{array}{c}
/_{\text{y}}^{\text{y}} / /C_{\text{v}}^{C_{1}} / /C_{1}^{C_{2}} / \text{Af} / \text{----} \)
\]

(iii)
MR 3b(4):

\[
\frac{\{^0\}}{\text{u}} \rightarrow \left\{ \begin{array}{c}
/\text{CV}/ /c_1 \cdots c_2/
\end{array} \right\}
\]

\[
/w/ / /\text{CVC}_1/ /c_1 \cdots c_2/
\]

(iv)

MR 3c - Reduplication:

\[
/o/ / /\text{CV}/ /c_1 \cdots \{^V\}_C/
\]

\[
/w/ / /\text{CV}/ /c_1 \cdots \{^V\}_C/
\]

(1)
5.2 Conclusions

Within the limits of the organized data and facts arrived at, at the taxonomic and explanatory levels of this research, it is possible, by way of conclusion, to make the following assertions:

1. That, the phonetic or phonemic data and facts are linguistically significant and important only to the extent that generalizations about their relational occurrences in the dialect are explicitly stated;

2. That, the phonological grammar constructed for the cultivated Ilokano dialect as spoken in Bayombong, Nueva Vizcaya is generative, i.e., predictive in that it projects an infinite number of potential combinations of the 34 emic units, beyond those actually represented in the corpus;

3. That, concomitant with the influx of loans which is evident in the everyday speech of the Ilokanos represented in this study; borrowed sounds, such as /e, o, f, v, h/, have become assimilated into the native phonemic system;

4. That, syntactic and morphological structures are inevitably involved in phonology - there is no strict separation of levels. The dynamics of stress in the dialect resulting from morphological expansion using affixes is one concrete instance of the interrelation of phonology and morphology. All the suprasegmental prosodies for that matter
depended on higher level grammatical considerations for their interpretation;

5. That, every utterance in the dialect can be uniquely represented as a sequence of phones - segments or suprasegments - which are in turn represented by a sequence of phonemes each of which can be regarded as a token or abbreviation for a set of phonetic features. The features are distinctive or contrastive in the dialect, setting utterances apart, thereby making communication possible. An analysis of the stream of speech bears this out even more succinctly;

6. That, a dialect has a phonemic system that is unique and adequate in itself and for its users. Thus, the Ilokano dialect in this study has its own phonemic code, slightly different from any of those of the dialects studied by Sibayan, Constantino, and McKaughan and Forster. There is no essential difference, however, in the syllable structure of the Ilokano dialects. On this point the writer begs to differ with Drs.' Sibayan and Constantino in that they established V as a syllable type in Ilokano. This view seems to be orthography-based or printbound. For example, what they list and transcribe as /a m̃a/ 'father', and /a/ 'a ligature', are linguistically CV(C), /qa m̃aq/ and /qaq/, respectively, since the glottal stop is a phoneme.

The writer begs also to disagree with Dr. Constantino who says that in Ilokano, syllable boundary, which he symbo-
lized as /-, is phonemic since it is unpredictable - i. e., either before or after C in the -VCV- sequence type - and that it has the allophones of a glottal stop, [ʔ], before a vowel, and a prolongation, indicated by [\ldots], of the final consonant before a consonant. He indicates the syllable boundary in the transcription when it occurs after the consonant in -VCV- sequences. For example:

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bir-ʔ</td>
<td>/birti/</td>
<td>[birti]</td>
<td>crack</td>
</tr>
<tr>
<td>maysa</td>
<td>/maysa/</td>
<td>[may.sa]</td>
<td>one</td>
</tr>
<tr>
<td>sabung</td>
<td>/sabung/</td>
<td>[sabun]</td>
<td>flower</td>
</tr>
<tr>
<td>sab-uṉ</td>
<td>/sab-uṉ/</td>
<td>[sabun]</td>
<td>laps</td>
</tr>
</tbody>
</table>

Considering the structural patterns of the Ilokano syllable (Sec. 2.33 of this thesis), the glottal stop, /q/, is a phoneme by the principles of identity of function - i. e., /q/ identifies with /t/ or /b/ - and by the principle of pattern congruity - i. e., in the CVC CVC sequence. For example:

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>rang-tay</td>
<td>/rang tay/</td>
<td>[rantay]</td>
<td>bridge</td>
</tr>
<tr>
<td>rang-ay</td>
<td>/rang ay/</td>
<td>[rantay]</td>
<td>progress</td>
</tr>
<tr>
<td>ut-tot</td>
<td>/ut tot/</td>
<td>[uttot]</td>
<td>break wind</td>
</tr>
<tr>
<td>ut-ot</td>
<td>/ut ot/</td>
<td>[uttot]</td>
<td>pain</td>
</tr>
<tr>
<td>sab-ong</td>
<td>/sab ong/</td>
<td>[sabun]</td>
<td>dowry</td>
</tr>
</tbody>
</table>

This view, of course, disregards the Aufhebung principle whereby /q/ may become a free variant of /p,t,k/ (Sec. 4.222).

One might say, for the sake of argument, that syllable boundary is phonemic since it patterns and functions like the consonant /b/ in /sā boŋ/ vs /sab qong/. The decision
in favor of such argument is untenable because syllable boundary is suprasegmental; i. e., it can be identified only in terms of several segmental units, while /b/ is segmental. Methodologically speaking, segments cannot be subsumed with suprasegments in one and the same phoneme.

Finally, that this research study has aimed at comprehensiveness of coverage and depth of analysis. The writer, however, is prepared to accept the possibility that in both content and methodology the study may well have failed to get at some crucial details. Gaps are inevitable. Perhaps the day will come when the type of metalanguage that has been employed in this grammar will be insufficient to resolve deeper questions concerning the phonological structure of the Ilokano dialect. This can be expected considering the present trend in the interdisciplinary approach to the study of language, whereby new phenomena are revealed and better concepts and methodologies developed.

The statements above reflect the attitude that at any time the writer must be prepared to modify her theory - i. e., the grammar - and evolve a more viable one which gives a precise structural delineation of all phonological phenomena in the dialect. As Robins has said, "linguistics as a branch of scholarship cannot afford to remain unaltered for any length of time." Language is dynamic and the thinking of students of language must be equally dynamic.

* * *
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